

SOAP AND CHEMICAL SPECIALTIES

FEBRUARY 1960

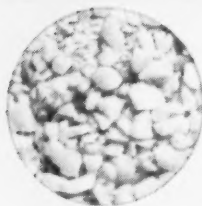


Warren Smith, Andrew K. Farmhouse, left, head of Los Angeles Soap Co., has resigned for his third consecutive term as president of the Soap Assoc. at annual meeting in New York last month. Andrew Smith is Soap Industry Hall of Fame member. U. S. Secretary of Defense, new chairman of Porter & Knudsen Co.

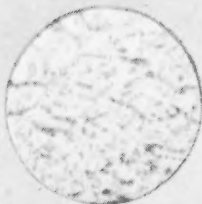
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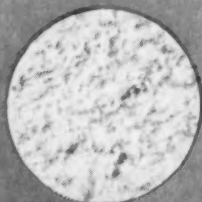
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FEBRUARY, 1960

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PRIVATE BRAND* RESALE BUYERS OF WAXES
AND KINDRED PRODUCTS... Your Quality Guide...

Beauty and Durability

Initial appearance is important, but for a waxed surface to remain beautiful, it must be durable. Durability depends not only on resistance to abrasion of traffic but even more so on resistance to discoloring marks. Durability should be measured by how long the waxed surface maintains a nice appearance before complete removal and re-waxing is required.

Anti-Slip

Anti-slip, or reasonable safety underfoot, does not mean that the qualities of beauty and protection need be sacrificed. The proper balance—a wax film which is not excessively slippery, yet which is not tacky and does not collect dirt readily—gives the performance that answers the foremost original reason for use of a floor wax—beauty and protection.

Water Resistance

Frequent damp mopping or wet traffic can make water resistance very important. Overdoing this quality when no problem exists out of the ordinary, simply increases the difficulty of complete removal or applying multiple coats. Removability must be considered as important as water-resistance under most normal conditions.

Solid Content

The percentage of solid content is not nearly as important as the quality of the solids. Good quality indicates 12% of solids as the answer for most well planned maintenance programs. Two applications of 12% gives better results than one of 18%. "Washed out" floors and other special problems maintain better when more concentrated waxes are used. Over-waxing and resultant greater difficulty in removal for periodic maintenance should be avoided.

Carnauba Wax

The most important features of a good wax... all-around quality of performance... are built around Carnauba Wax. When refined and compounded with other additives and scientifically controlled in manufacture, Carnauba imparts the beauty and protection that makes the use of floor waxes both profitable and possible. Make-shift manufacture or over-emphasis on any one given wax feature should be avoided and proper care taken to provide for most satisfactory performance.

Other CANDY & CO.
HIGHEST QUALITY PRODUCTS

WATER EMULSION WAXES

Each of Candy's floor waxes are all-around top quality for certain traffic conditions. They impart the finest protection and beauty to floors for which best suited.

**CANDY'S SUPREME (standard)
BRIGHT BEAUTY®**

CANDY'S SUPREME Special WR

SUPER CAND-DOX®

CAND-DOX® # CS

CAND-WAX #6000

CANDI-COAT 1000, WATER RESIN EMULSION—As a floor coating for use under specific conditions of continued maintenance on certain types of floors this water resin emulsion has none of the faults associated with coatings of this type. It is the finest product in its class produced up to this time.

Bright Beauty WAX REMOVER & all-purpose SURFACE CLEANER—For removal of water-emulsion waxes from any floor without harmful effects. It is the perfect maintenance program wax remover and all-purpose surface cleaner. Pleasant odor, crystal clear color and thorough cleaning action with all types of equipment. Unaffected by hard freezing. Furnished ready for resale or in concentrated form for local packaging... nothing but water to buy or mix in.

CANDI-CLEAN all surface—all synthetic CLEANER—This is an all synthetic and all purpose surface cleaner with free rinse and free wipe off qualities. Furnished in several colors and odors, and properly priced. Available in two concentrations for resale and in concentrated form for dilution with water for local packaging.

Bright Beauty CREAM FURNITURE POLISH—A cream furniture polish that spreads easily, polishes without excessive effort to a deep impressive lustre. Permits repeated repolishing with a dry cloth, thus saving many re-applications. A very economical polish of the very highest quality.

Bright Beauty PASTE WAX—Properly blended and refined from excellent quality solids and solvents that produce the best drying time and evaporation. Easy to handle, having "creamy" consistency and stability that lasts throughout storage and usage life.

Bright Beauty LIQUID (spirit) PREPARED WAXES—A complete line of spirit dissolved waxes that meet a wide variety of demands for durability, color and types of usages. Each acts as a "dry cleaner" to keep surfaces wax protected with a superb coating necessary for many applications such as wood and certain other types of floors; for bars, wallpaper, etc.

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Bright Beauty DANCE FLOOR WAX—Does not "ball-up" and gather dirt that impregnates floors with hard spots difficult to remove... free from dusty effects. Its protective quality adds more "floor-years" to expensive ballroom floors.

Bright Beauty Heavy Duty PASTE CLEANER—Cleans and scours more effectively and quicker than most scouring powders. Depending on application, it can clean to perfection even painted walls to provide a suitable repainting surface, 100% active, free from excessive abrasive qualities, it frees almost every surface from all foreign matter.

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Cover photo: Andrew K. Forthmann, left, president of the Soap Association, greets Neil H. McElroy, former U. S. Secretary of Defense during annual meeting of AASGP at Waldorf-Astoria Hotel, New York, last month. Mr. McElroy, formerly president of Procter & Gamble Co., has been elected chairman of the board. He is also a former president of the Association of American Soap and Glycerine Producers.



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SINCE 1931

IN THIS ISSUE

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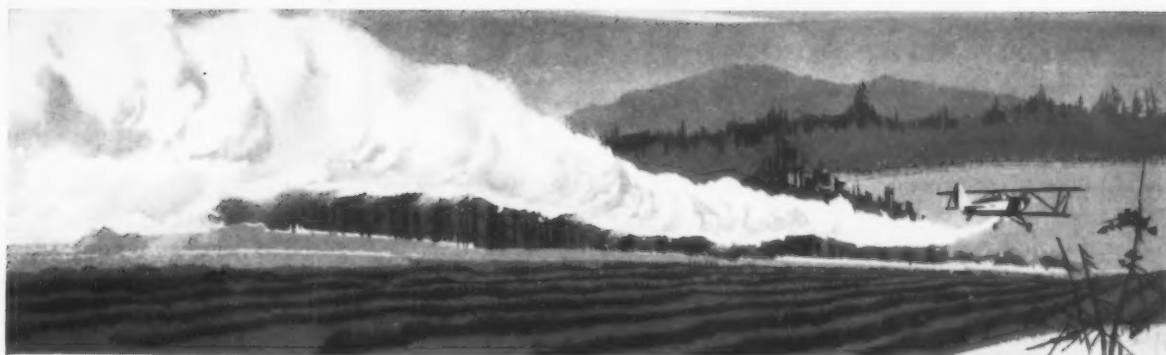
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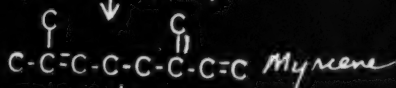
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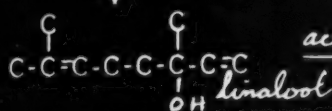
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Pyrolysis

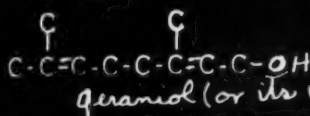


hydrate



acetylate \rightarrow linalyl acetate

or

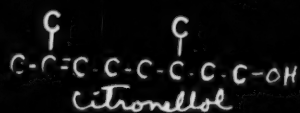


geraniol (or its isomer - nerol)

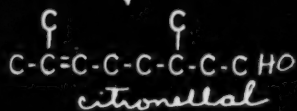
acetylate \rightarrow geranyl acetate

hydroxylate

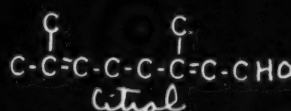
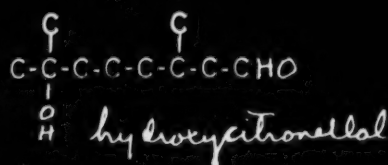
dehydrogenate



dehydrogenate



hydrate



condense with acetone

pseudoionone

cyclize

alpha- and beta-ionones

Dec 11, 1959

• • •

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Apparent Molecular Weight.....	292
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Minimum Activity	90%
Flash Point (C.O.C.).....	355°F.
Viscosity S.U.S. at 100°F.....	105
Pour Point	Less than -5°C.

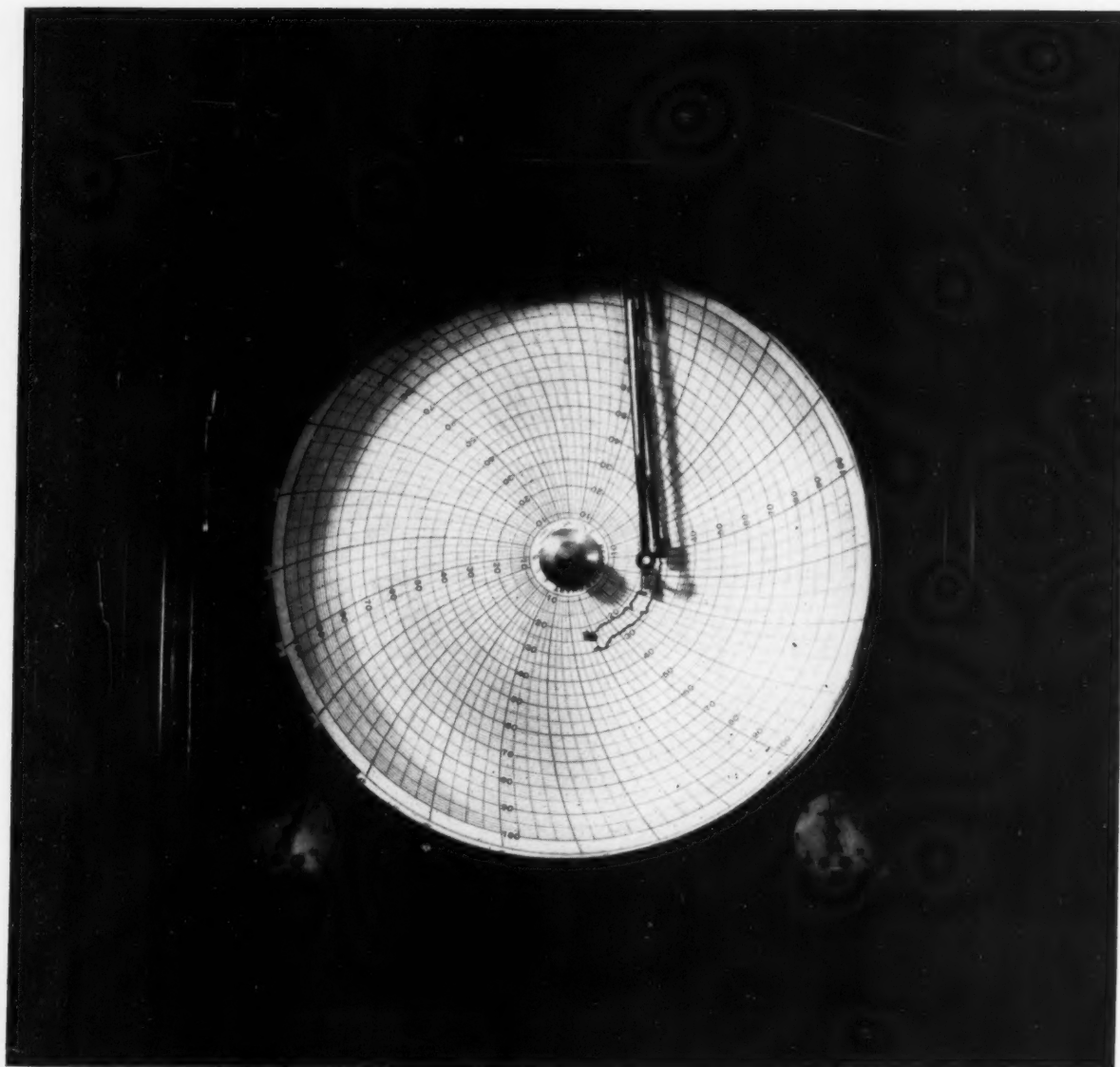


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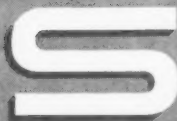


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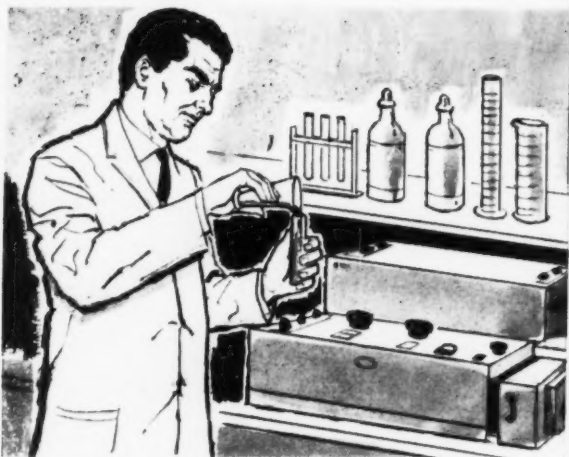
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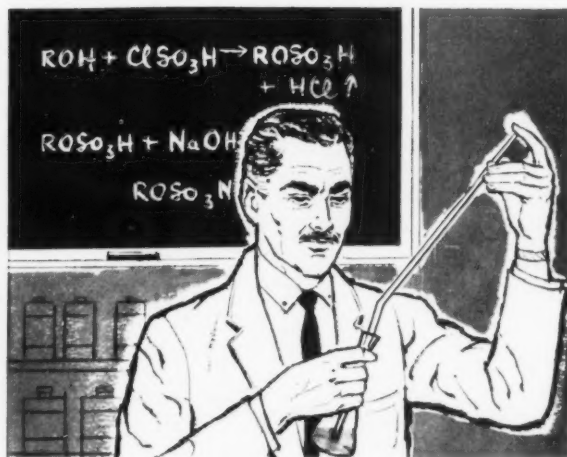


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4 ways to use Surfact-Co Tech Service



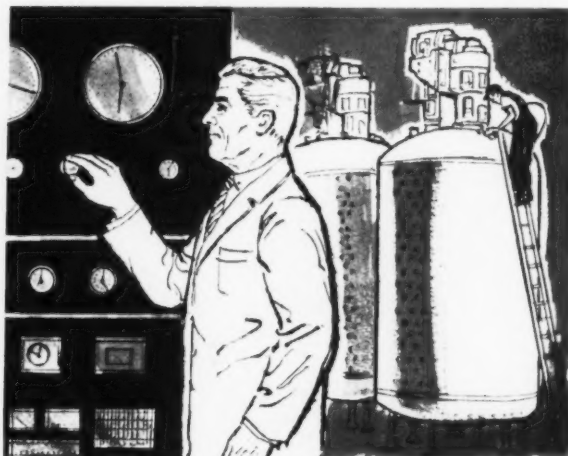
1. PRODUCT ANALYSIS "Which Lauryl Sulfate is in this detergent?" "How do we get this viscosity?" "Will Lauric Diethanolamide stabilize the foam better?" Your own chemists usually have the answers to questions like these. But if you do run into a snag, write Surfact-Co Tech Service. Glad to help.



2. FORMULATION "How do we put the auxiliary foamer in this tricky formulation?" "How can we make this high viscosity car shampoo for less money?" "Can you suggest a concentrated version of this floor cleaner to be used as a liquid?" . . . What's YOUR problem. Write Surfact-Co Tech Service. Include specimen and background data.



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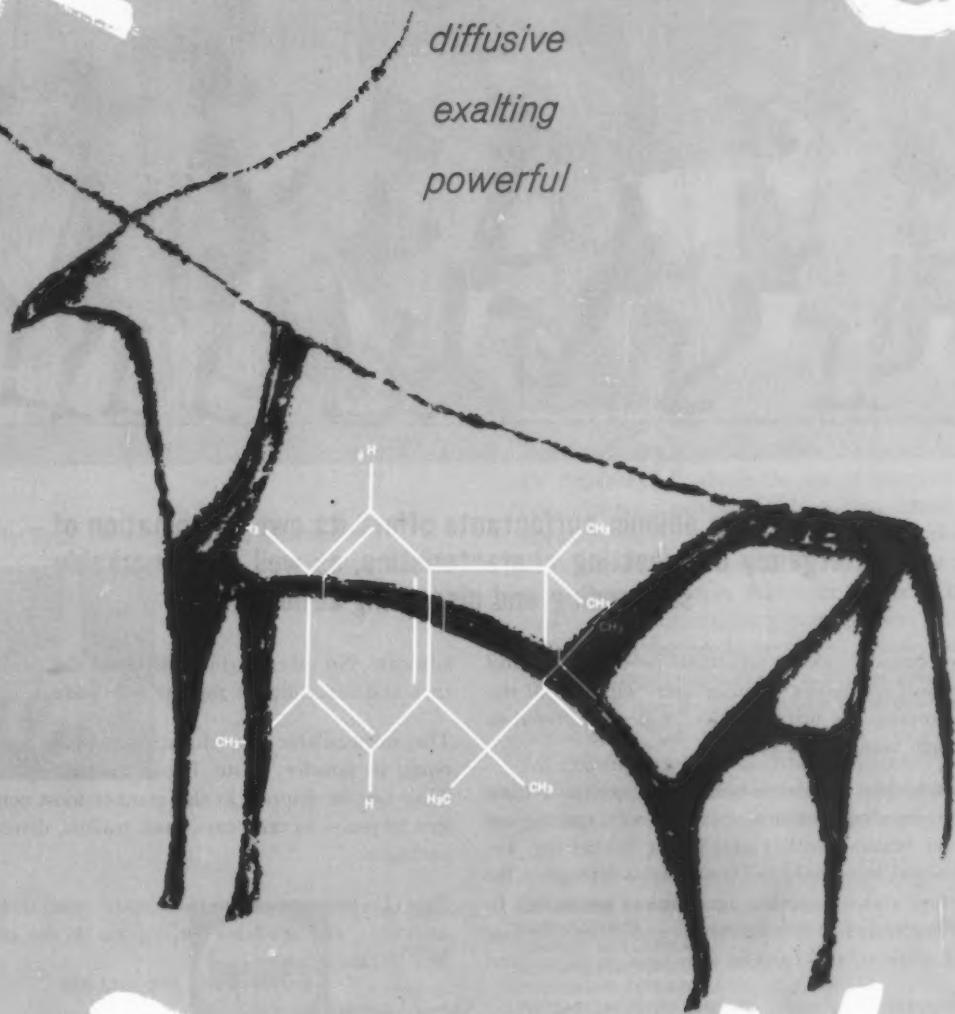
Blue Island, Illinois

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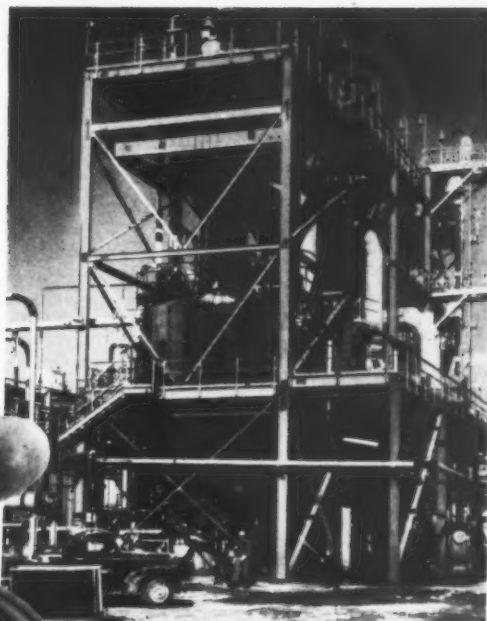
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Vacuum crystallizers are an important segment of the new, ultra-modern, refinery recently completed and on stream at Boron, California.

Granular borax improves powdered hand soaps



Are you making powdered hand soaps?
Or cleansers? Evaluate the use of granular borax in your product! Others have found that borax boosts the cleansing power... makes soap work better in any water. So, today we're producing more granular borax than ever before; witness our new vacuum crystallizing plant shown above. It is part of the newly expanded refinery built to assure our customers of a dependable basic source of quality borates... in every form for every possible use. Get in touch with us now for helpful suggestions. You'll get sound advice. We've been *specialists* in borates and boron products for more than half a century!

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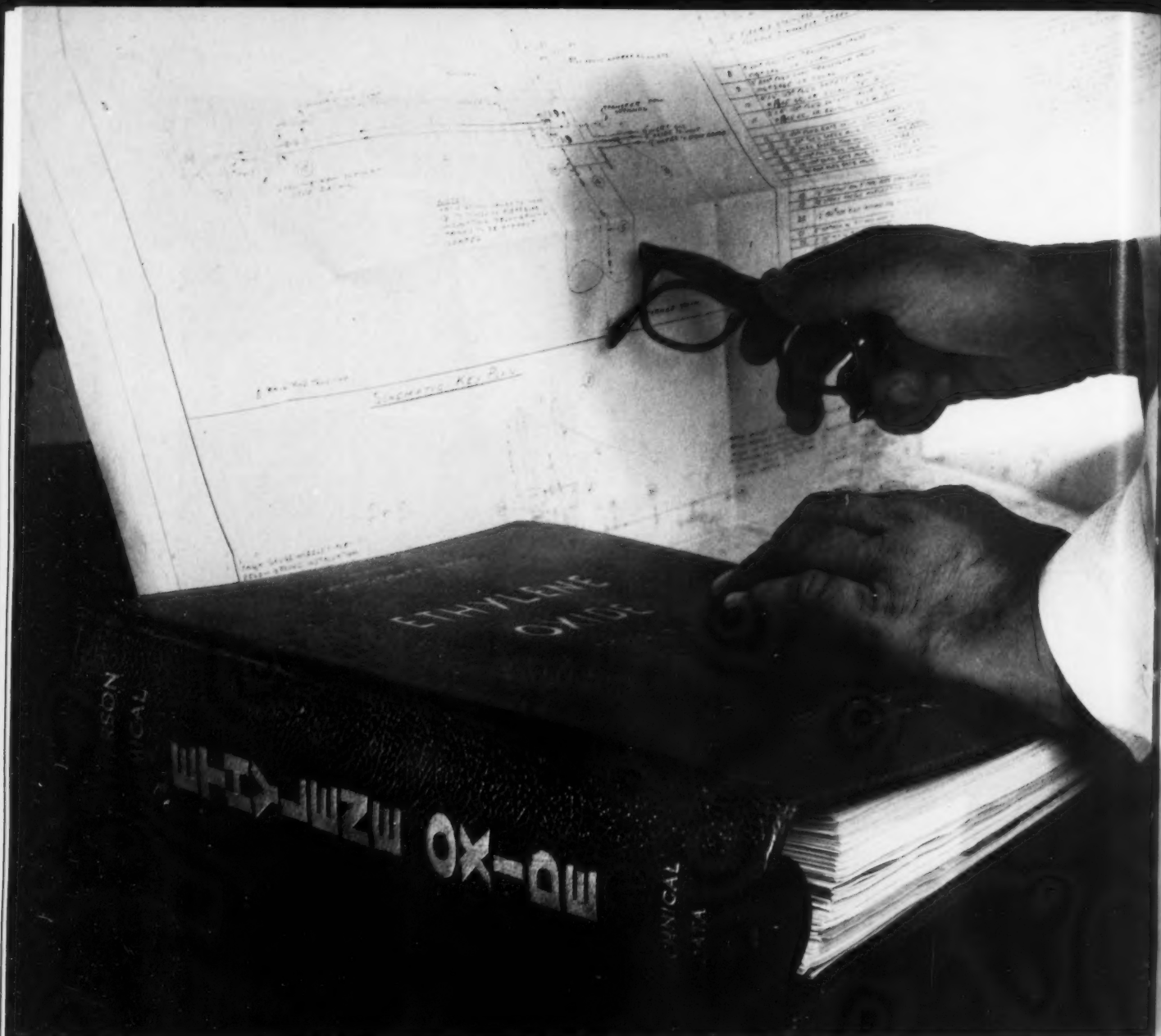


United States Borax & Chemical Corporation



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FEBRUARY, 1960



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Jefferson augments this new improved ethylene oxide with comprehensive technical data and technical application services. The Jefferson engineers' three-inch manual pic-

tured above contains indexed information on Properties, Toxicity, Safety, Storage and Equipment, Containers, and Reactions of ethylene oxide. This manual is not available for distribution, but you may obtain any part of the information it contains from the Jefferson engineers. For example, if you are setting up to store and handle ethylene oxide, they can give you cost estimates, blueprints of typical facilities, recommended equipment and procedures. They can be equally helpful in the numerous uses of ethylene oxide.

Still another highly useful survey

is Jefferson's literature and patent abstract . . . "The Preparation of Non-ionic and Other Surface Active Agents Based on Ethylene Oxide." This survey is available to those engaged in industrial research.

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**JEFFERSON
CHEMICALS**

After Closing

Frank Hoffman Dies

Frank Hoffman, president and founder of F. W. Hoffman Co., Philadelphia sanitary supply



Frank W. Hoffman

house, died of pneumonia on Monday evening, Feb. 8 at the Bryn Mawr Hospital. He was 81. Prior to going into business for himself Mr. Hoffman was a "Fuller Brush man" in downtown Philadelphia. He opened his own business in 1907 selling cleaning supplies for building maintenance. The firm was incorporated in 1927.

Mr. Hoffman placed great emphasis on selling right through his long business life—he got his first job at 16—and stressed particularly the floor maintenance side of his firm.

Wheaton Forms New Corp.

Formation of Wheaton Plastics Corp. was announced Feb. 9 by Frank H. Wheaton Jr., president of Wheaton Glass Co., Millville N. J. Prime function of the new organization will be the manufacture and sale of plastic coated glass containers for aerosols. In addition, basic development work will be carried out on other uses of Wheaton's technique of plastic coating.

Robert N. Allen, formerly associated with Wheaton Plastics Co. and Bridgeport Brass Co. is vice-president and general manager of the new organization which has executive and sales offices in Millville and a factory in Mays Landing, N. J.

Wheaton Plastics Co. has developed a special process whereby glass bottles for aerosol dispensing are sheathed in a plastic coating. It will continue as a prime supplier of injection and blow moulded plastic parts and containers with Richard Taylor as vice-president and general manager.

Economics Sales

An increase in net sales of Economics Laboratory, Inc., New York, for the last six months of 1959 was reported recently. Sales were \$10,947,000 in the last half of '59, compared with \$10,115,260 in the corresponding 1958 period. Net income rose to \$274,486, or 58 cents per common share, from \$244,857, or 51 cents per share in 1958.

Onyx to Acquire New Name

The business and properties of Onyx Oil & Chemical Co., Jersey City, N. J., were reported last month as expected to be dissolved and transferred to a new corporation known as Onyx Chemical Corp. The proposed transaction was disclosed with the filing of a registration with the S.E.C. covering 140,000 shares of the new company's common stock proposed to be offered to public sale. F. O. Robitschek continues as president.

Update Lipstick Color Ban

The effective date of the ban on 17 coal-tar colors used principally in lipsticks was postponed late last month by the Food

and Drug Administration to Feb. 1. The postponement was made to give further time to industry requests for public hearings on the proposed ban before it becomes final.

Pennsalt Appoints Four

George D. Grogan was named general sales manager last month for the industrial chemicals



George D. Grogan

division of Pennsalt Chemicals Corp., Philadelphia. He succeeds George R. Lawson, recently appointed general manager of the chemical specialties division.

Other appointments that are part of an expansion of the marketing activities of the industrial chemicals division include W. G. Kayser to the newly created post of sales manager of organic chemicals; Arthur F. Bixby as manager of sales; and Melbourne P. Binns as a product manager.

Mr. Grogan has been with the industrial chemicals division (formerly Sharples Chemical Division), throughout his 22 years with the company and served most recently as manager of chemical sales. Mr. Kayser joined the division in 1946 and became a product manager 10 years later. With Pennsalt since 1938, Mr. Bixby was manager of marketing research prior to his new appointment. Mr. Binns became associated with Pennsalt in 1952 in the development department of the industrial chemicals division.

Nolen Addresses CIBS

Increased use of merchandising, advertising and display will be required in the next 10 years, Herman C. Nolen, president of McKesson & Robbins, Inc., New York, told the Jan. 14 luncheon meeting of the Cosmetic Industry Buyers and Suppliers (CIBS) Association. The meeting was held at the St. Regis Hotel, New York. In his talk, titled "Business Outlook—Pro and Con," Dr. Nolen outlined some of the forces that will affect business in the coming decade, which he termed the "Selling Sixties." One of the problems to be faced in the next ten years, he noted, is the reduction of distribution costs, and the only solution to this problem is to be found in merchandising, "distribution's automation." Merchandising and advertising, Dr. Nolen stated, are among the most effective tools of marketing.

—★—

Felton in Europe

Robert E. Felton, vice-president of Felton Chemical Co., Brooklyn, N. Y., manufacturers of perfume and flavor materials, is visiting Felton Co., (Great Britain) Ltd., London. Mr. Felton, who has been with the company for about 34 years most recently in charge of promotional activities, is travelling in England with Ray Stansfeld, director of the British firm. He also plans to visit Felton Co.—France in Versailles to discuss company programs for 1960 with Leon Gefen, director.

—★—

Nat'l. Labs Advances Three

Norman W. Jennings was advanced to vice-president of marketing last month for National Laboratories, Inc., Toledo, O., a wholly owned subsidiary of Lehn & Fink Products Corp., New York. With National since 1945, Mr. Jennings was formerly marketing administrator and continues as company secretary. In his new post, he is responsible for over-all marketing policies, including sales for National and the professional division of Lehn & Fink, Toledo,



Herman C. Nolen, president of McKesson & Robbins, Inc., New York, second from left, was the guest speaker at the January luncheon meeting of CIBS Association. With Dr. Nolen are, left to right: Lamsom Scovill, Scovill Manufacturing Co., CIBS president; Shockley C. Gamage, Magnus, Mabee & Reynard, Inc., general program chairman; and J. William Voit, George Lueders & Co., second vice-president of CIBS.

New general sales manager is William A. Thompson, who was formerly south central region manager. He has been with the company since 1950 and now directs the activities of more than 200 of its field representatives. Mr. Thompson is replaced by Elwin J. Clausius who has been advanced from Oklahoma division manager. Mr. Clausius joined National in 1952.

—★—

BIMS Reelects Harris

BIMS of Boston, which celebrates its 20th anniversary this year, has reelected Hart Harris, Jr., of S. B. Penick & Co., New York, as chairman. This is the tenth year as chairman for Mr. Harris.

New members elected to the executive committee are James A.

Dugan, New England representative of Dodge & Olcott, Inc., New York, and A. L. Weston, director of purchases for B. B. Chemical Co.

BIMS of Boston will hold its seventh annual Ladies Night at the Weston, Mass., Golf Club, April 30th. The organization's winter dinner was to take place Feb. 18 at Maugus Club, Wellesley, Mass.

—★—

d'Escayrac Heads PIA

Bernard d'Escayrac, president of Guerlain, Inc., New York, was elected president last month of the Perfumery Importers Association, succeeding the late Maurice Levy, president of Mauvel, Ltd., New York. Mr. Levy died on Jan. 2. Mr. d'Escayrac has been head of the Guerlain interests in the United States since 1927.

N. W. Jennings

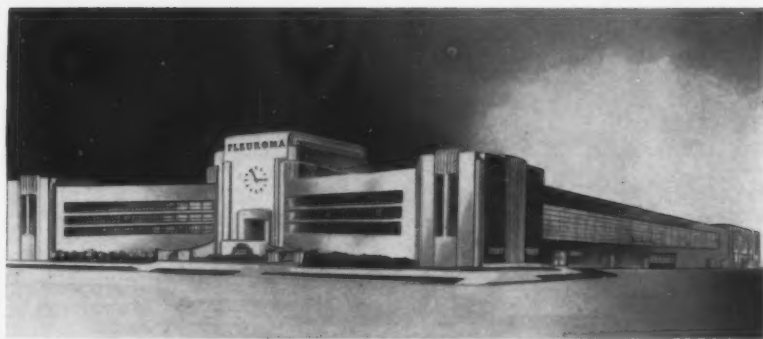


W. A. Thompson



E. J. Clausius





New home in Long Island City of Fleuroma, Inc., New York perfuming materials firm. Building will provide over 90,000 square feet of floor space.

Fleuroma to Expand

Fleuroma, Inc., New York, perfume oils and specialties firm, recently purchased the land and building of Knickerbocker Laundry at 43-23 Dreyer Ave., Long Island City 1, N. Y. The company plans to redesign the 90,000 square foot building for its main plant and central administrative offices. Extensive perfume laboratories will be housed in the new facility into which Fleuroma expects to move late this spring. Within the last year and a half, the company has established plants at Sao Paulo, Brazil, London, and Paris, and a sales office in Chicago.

— ★ —

Tumpeer Witco Vice-Pres.

Joseph J. Tumpeer has been elected senior vice-president and special advisor to the president for Witco Chemical Co., New York, it was announced last month by Max Minnig, president. Mr. Tumpeer joined the company in 1921 as an

Joseph J. Tumpeer



officer in Chicago. In 1952, he was transferred to New York as vice-president of asphalt sales and manufacture.

— ★ —

W&T Advances Ainsworth

Bruce Ainsworth has been elected president of the Harchem Division of Wallace & Tiernan, Inc., Belleville, N. J., it was announced recently by Charles H. Rybolt, vice-president of chemical divisions. In his new post, Mr. Ainsworth is responsible for all division activities including research, product development, production and sales. Most recently assistant to Mr. Rybolt, Mr. Ainsworth was with Celanese Corp. of America before joining Wallace & Tiernan.

Mr. Rybolt also announced five additions to the Harchem staff. William C. Wiley has been appointed product development manager. He has had research and product development experience in the polymers and chemicals field

Bruce Ainsworth



for the past 18 years with such firms as Reichhold Chemical Co. and Nopco Chemical Co. New representative for fatty acids in the Illinois, Missouri, and Wisconsin area is William G. Paul, who has been associated with Victor Chemical Works, Chicago, E. F. Drew & Co., New York, and van Ameringen-Haebler, Inc., New York. C. John Ebbrecht is now a representative for fatty acids in the New England and New York state area and Wallace E. Riffelmacher is sales representative for chemicals and plasticizers in the same area. New sales representative for the division's plasticizers in the mid-west is Raymond C. Wolfert, formerly with McKesson & Robbins, Inc., New York.

— ★ —

CAIAM Elects Officers

The Chemical and Allied Industries Association of Michigan installed newly elected officers at its first meeting of the year held in Detroit last month. New officers are:

Russel Haeger, Dow Chemical Co., president; William F. Harlton, Detroit Veterinary Supply Co., vice-president; J. Pearson Stanley, R. P. Scherer Corp., treasurer; Milford R. Polley, Mallard, Inc., secretary. New members of the executive committee are: A. S. Bedell, Beauty Counselors; Dan F. Bradley, Shell Chemical Corp.; William E. Irwin, Miles Chemical Co.; and Russell W. Leib, Jr., Armstrong Cork Co.

— ★ —

FDA Rules on Heptachlor

The Food and Drug Administration rescinded last month a previous regulation which permitted small residues of heptachlor pesticide in food and forage crops to be shipped interstate after finding that time and weather convert the chemical into another substance. The new evidence shows that a breakdown product of heptachlor, called heptachlor epoxide, is present in crops treated with the chemical, FDA reports. It was also stated that residues of epoxide are found in meat and milk when forage containing it is fed to meat and dairy animals while no evidence of heptachlor itself is present. Data were not yet available

indicating how much of the epoxide may be present under varying conditions and the toxicity of the epoxide has not been fully evaluated.

Meanwhile it was reported that John F. Kirk, vice-president of Velsicol Chemical Corp., Chicago, in commenting on the FDA request, said that a study completed by the Kettering Institute showed that the pesticide and its by-product were non-toxic. Thirty days were allowed for persons affected by the request to file written objections and request a public hearing.

★ "Diazinon" Formulation

A formulation data sheet for "Diazinon" insecticide for use in residual household insect sprays was distributed recently by Geigy Agricultural Chemicals, a division of Geigy Chemical Corp., Ardsley, N. Y. Specimen labels for both pressurized and liquid sprays were made available at the same time. "Diazinon" is combined with synergized pyrethrins in the formulations which are designed to control roaches, ants, silverfish and other common household insect pests. Geigy "Diazinon 20-S," a solution containing 20 per cent "Diazinon" (1.5 pounds per gallon) in an aromatic petroleum derivative solvent, is available for formulating household residual sprays. "20-S" in this form is virtually odorless and may be combined directly with synergized pyrethrins concentrates and base oils such as deodorized kerosene to produce residual household sprays, according to Geigy.

★ New Aromatics Fragrance

A new fragrance called "Auralia" is described in the January issue of "Lab Scents," monthly bulletin published by Aromatic Products, Inc., 235 Fourth Ave., New York 3. The new fragrance, called a French Bouquet type, has application in liquid soaps and detergents and chemical specialties. A one pound trial quantity is available at the five pound price of \$3.50 per pound.

In General Mills Post

The appointment of Henry L. Ritell as New York district sales manager of the chemical division



Henry L. Ritell

of General Mills Corp., Kankakee, Ill., was announced last month by H. T. Von Oehsen, division sales manager. Mr. Ritell succeeds Alfred G. DeMeurisse, who was recently advanced to national field sales manager (see *Soap and Chemical Specialties*, January 1960, p. 21). In his new post, Mr. Ritell supervises sales of the company's "Versamid" polyamide resins, fatty nitrogen chemicals, "GenEpoxy" epoxy resins, "Genamid" co-reactants, and "Deriphat" amphoteric surfactants in eastern markets. Most recently Mr. Ritell was east-

ern sales representative for the chemical division.

★ Perfumers Set Symposium

The American Society of Perfumers will hold its sixth annual open symposium on April 28 at Essex House, New York. The technical program will start at 2:00 P.M. and will be followed by a buffet dinner.

Walter Lengsfelder of Fleurba, Inc., heads the committee in charge of the event. Other members include: E. Kilmer of Lever Brothers Co.; O. L. Marton of Shulton, Inc.; H. Saunders of Givaudan-Delawanna Inc.; and E. Shuster of van Ameringen-Haebler Division.

★ New "Pamak" Storage Unit

Establishment of bulk storage facilities in northern New Jersey for "Pamak" tall oil fatty acids manufactured by Hercules Powder Co., Wilmington, Del., was announced last month by John H. Calo Co., New York chemical distributors. The facilities serve customers in the metropolitan New York and northern New Jersey areas, particularly those requiring tank truck deliveries, according to John H. Calo, president. "Pamak" fatty acids are used in detergents, cleaners, and chemical specialties.

New officers and directors of CIBS Association for 1960 are, left to right: Frank Hussey, Evans Research & Development Co., a director; H. Ray Rogers, Colgate-Palmolive Co., recording secretary; Robert C. Ring, Hewitt Soap Co., first vice-president; Lamson Scovill, Scovill Manufacturing Co., president; J. William Voit, George Lueders & Co., second vice-president; Jay Stephens, Daggett & Ramsdell, Inc., treasurer; Frank Pond, Dominion Products Co., corresponding secretary.





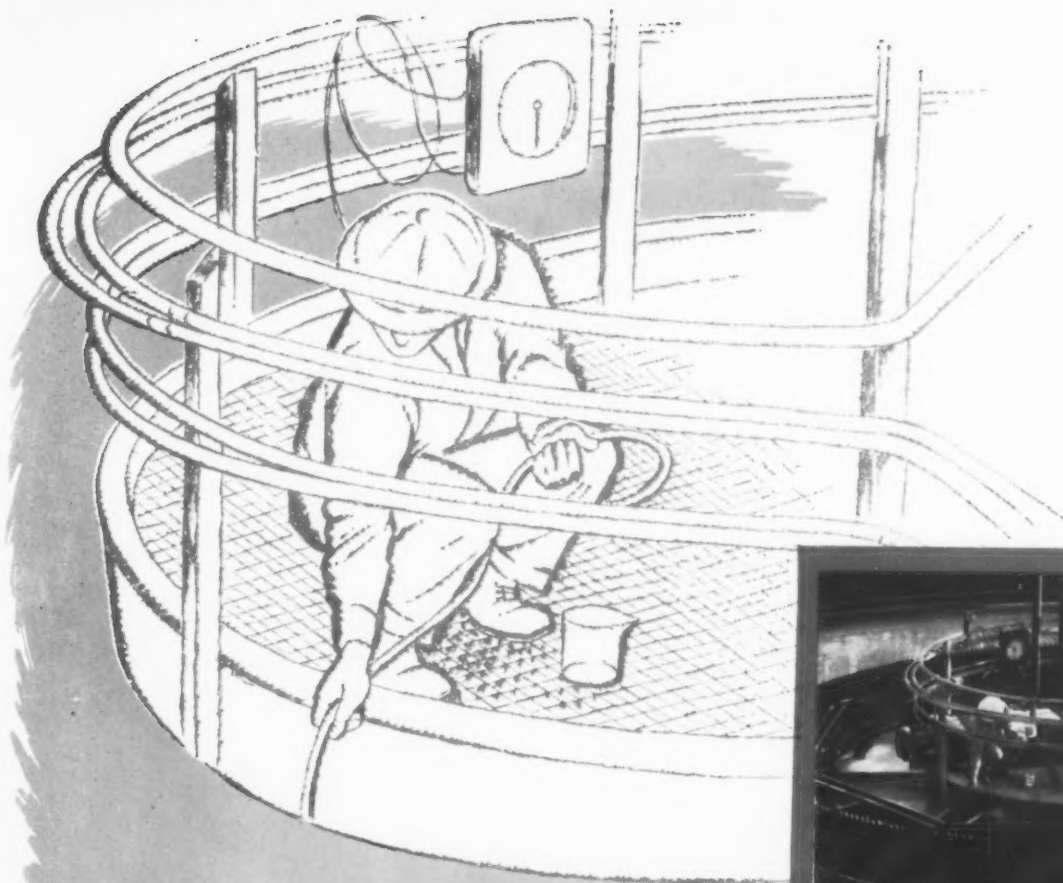
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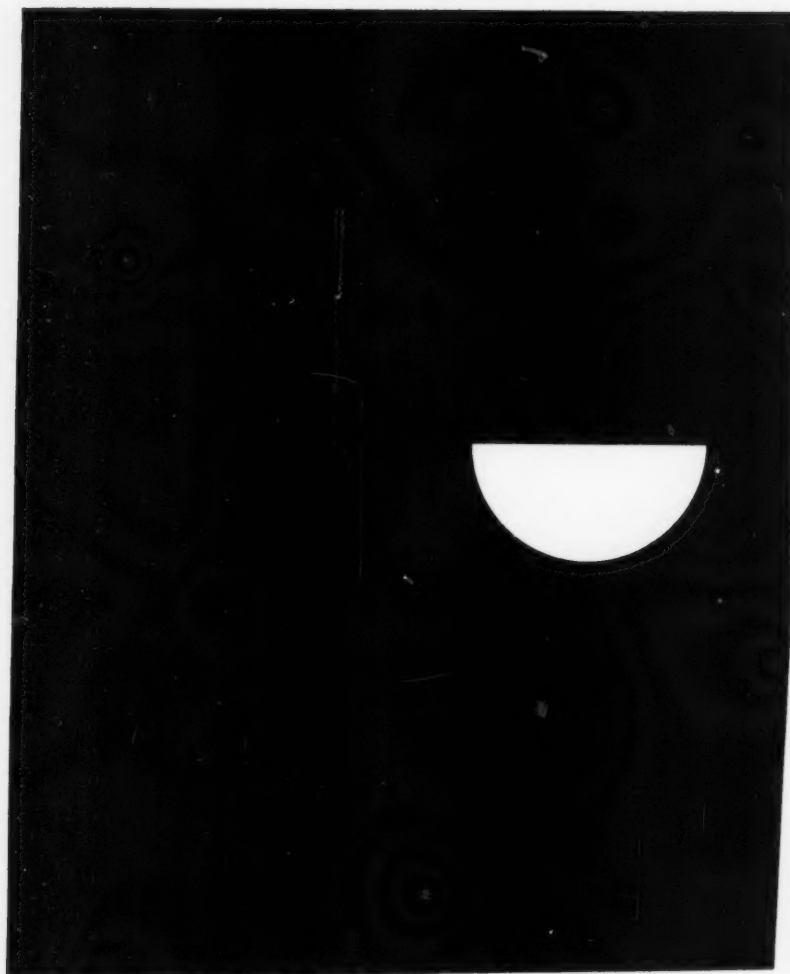


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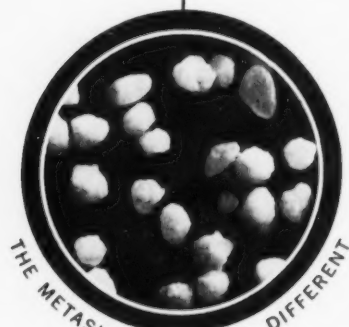
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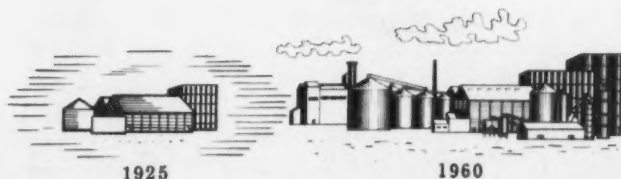
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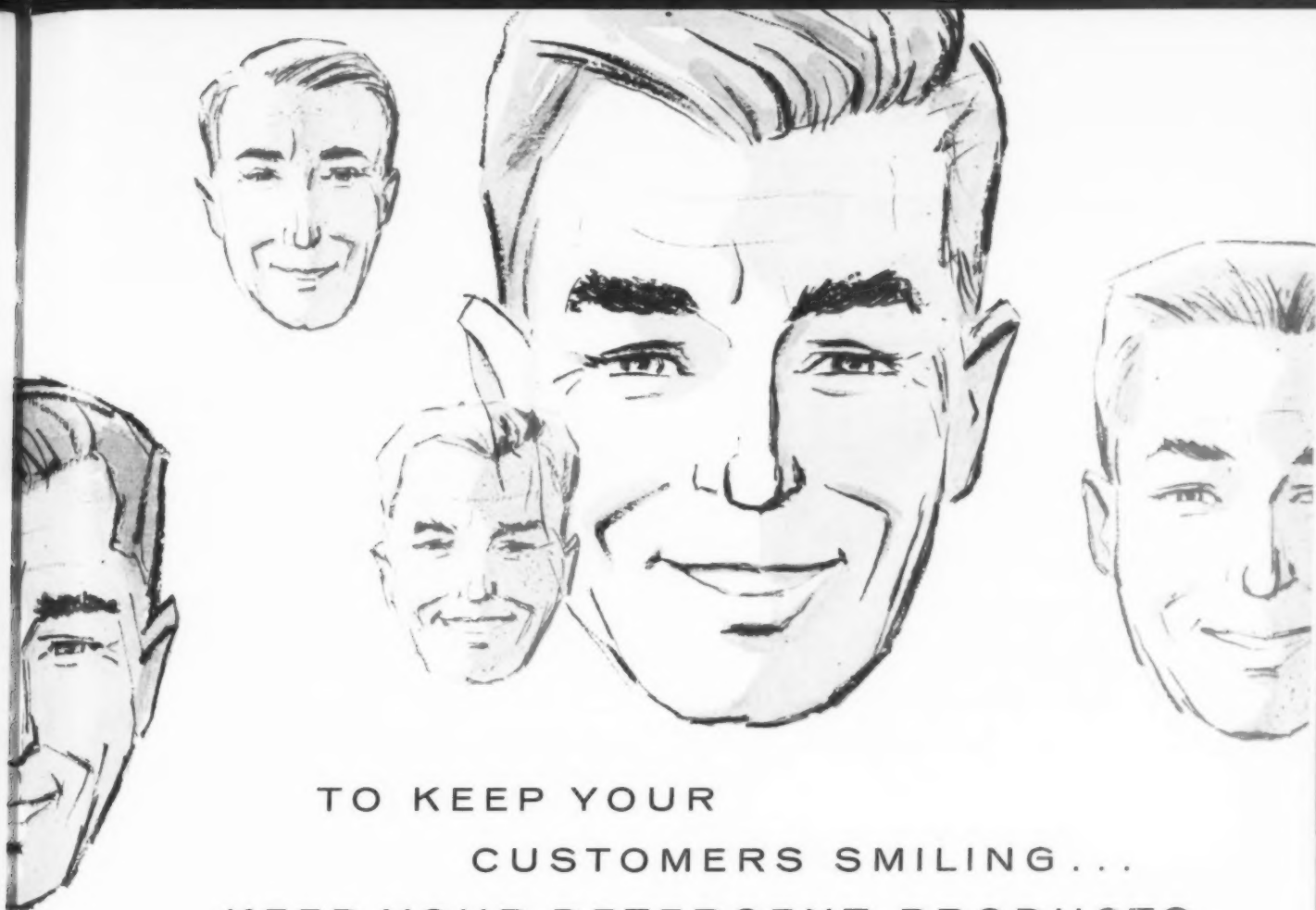
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- ☐ 6. **Advances in Pest Control Research**, edited by R. L. Metcalf. Volume I: 522 pages, 11 illus., 13 tables. Covers the most recent advances in all phases of the applied science of pest control. Price \$12.50. (Volume II also \$12.50)
- ☐ 7. **Pressurized Packaging (Aerosols)**, by A. Herzka and J. Pickthall. 411 pages, 19 chapters, well illustrated. The first complete work on aerosols yet to be published. Covers propellants, filling techniques, laboratory testing, dispenser components, and formulations of most aerosol products. Includes an index of aerosol trade names and glossary of terms. Price: \$12.00.
- ☐ 8. **Handbook of Cosmetic Materials**, by Greenberg-Lester. 467 pages. Covers the properties, uses and toxic and dermatological actions of over 1,000 materials selected in response to a questionnaire sent to cosmetic manufacturers. Includes a chapter on the skin by Howard W. Haggard, Director, Applied Physiology Laboratory, Yale University. Price: \$13.50.
- ☐ 9. **Soap Manufacture**, by Davidson et al, in two volumes. Volume I: 537 pages, 66 illus., 118 tables. Covers the history of the soap industry, theoretical principles of soap manufacture, raw materials of soap manufacture and the fatty raw materials. Price: \$13.50. (Volume II in preparation)
- ☐ 10. **Cosmetics: Science and Technology**, edited by Edward Sagarin. 1453 pages, 138 illus., 107 tables. Covers origin, development of cosmetic science and discusses individual products such as hand creams, suntan preparations, skin lighteners, shaving soaps and creams, nail polishes and removers, deodorants, aerosol cosmetics and many other cosmetic and toiletry products. Price: \$27.50.
- ☐ 11. **Industrial Oil and Fat Products**, by Alton E. Bailey. 991 pages, 164 illus. 133 tables. Covers the nature of fats and oils, their composition and structure; raw materials; industrial utilization. Price: \$18.00.
- ☐ 12. **Fatty Acids**, by Klare S. Markley. 678 pages, 81 illus., 163 tables. The chemistry and physical properties of fats and waxes. Price: \$14.50.
- ☐ 13. **International Encyclopedia of Cosmetic Material Trade Names**, by Maison G. de Navarre. Nearly 400 pages of the most complete listing of all the materials of the world used in cosmetic manufacture. Includes quick, concise descriptions of approximately 4,000 materials and the names and addresses of the suppliers, as well as a cross-index of the materials and their uses. Price: \$7.50.

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... And because of greater purity, HD-90 offers you higher product performance. Pilot HD-90 does a kind of cleaning on many hard surfaces that no other material can do at any concentration. That's *maximum quality level!* It means new sales areas for your products.

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Pilot HD-90 is stable in any weather. Even on hot, sticky, humid days production rolls along in high gear—and your products retain this all-weather protection, too.

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Packed in polyethylene-lined fibre drums and 5-ply paper bags.



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Back of hundreds of chemical specialties...



Quality Ingredients and Technical Service

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Colgate-Palmolive offers you quality products and technical know-how, backed by more than 150 years of leadership in the soap and synthetic detergent field.

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for detergents that are as good as they look...

Westvaco®

TRIPOLY

uniform...
white...and
free-flowing!

To build good white detergents that perform consistently in use, you can't beat Westvaco STPP!

Whether your process requires Phase I or Phase II material, we can supply your tripoly in powder, coarse or fine granular form with chemical and physical properties dependably uniform. Shipment after shipment, you get the same high degree of light reflectance, the same P_2O_5 content, alkalinity, good flowability and freedom from caking.

For your convenience, we offer a wide choice of packaging. Our comprehensive range of sodium and potassium phosphates gives you greater flexibility in ordering mixed-load shipments, too. Service is always fast and dependable from integrated production on both coasts and in the Midwest.

One added thought: If you are considering production of heavy duty detergents by the dry neutralization of DDBSA and alkalis, we'll be glad to assist. We can suggest the right form or combination of forms of STPP and provide expert technical assistance you will find valuable. Call us today.

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Putting Ideas to Work

FOOD MACHINERY AND CHEMICAL CORPORATION

Westvaco Mineral Products Division

General Sales Offices:

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Win her approval.
perfume your detergent with Givaudan
Tergescents®

Women are always "fragrance-conscious"—a pleasant scent is often the prime factor in her repeat purchases. You can key your household detergents to her preferences with low-cost Givaudan *Tergescents*.

These powerful, appealing fragrances—for liquid or powdered detergents—are especially developed to assure your detergent's success. They will give you outstanding consumer acceptance at very low cost.

Givaudan will be glad to recommend the type of *Tergescent* that is best suited to your product...or we can custom-make a fragrance that exactly fits your specific needs.




GIVAUDAN-DELAWANNA, INC.
 321 West 44th Street, New York 36, N. Y.

SOAP and CHEMICAL SPECIALTIES

...IN BRIEF

as the editor sees it . . .


 **SWITCHING . . .** When competition squeezes just about all the profit out of an item, the time has usually arrived to look about for an opportunity to switch into something else. Or when a product is outdated and competition leaves it in the ruck, a switch is obviously indicated. The larger firms as a rule are coldblooded in matters of this sort. They seldom let sentiment interfere with judgment. But this is not always the case with smaller outfits. Some will hang on with the old item until it is pushed right up against the wall. Because our fathers and grandfathers made the product, and did pretty well at it, is no reason why we should continue if we have to take a competitive beating to do so.

Over the past decade, para blocks have become an interesting case in point as profit has been squeezed out by competition. Smarter marketers have switched their attention from industrial to retail channels with an upgrading of packages, higher prices, new markets. To a degree, we have a similar situation in hand cleaners, laundry bleach, certain soaps, polishes and others. If the profit is gone via price cutting or sales have dwindled because of losses to competitive items, why stick with the ship? Surely, there is always some demand for outmoded items. There always will be. And price competition may lessen,—and maybe a competitor will drop out of the picture. But it could be a long and costly wait.

The larger companies are constantly switching their sales emphasis to new products. Maybe research has discovered something, maybe sales of old things are beginning to sag, maybe price competition is too keen for their liking. But mostly, they don't fool around. When a product looks like it is becoming unseaworthy, it is scuttled and without ceremony. It may be

heroic to stick with the old tub until she founders,—but poor business. Yet we see it year after year.

* * * * *

 **AEROSOL QUALITY . . .** A rather striking feature of the latest aerosol package exhibit held in conjunction with the CSMA meeting recently was the wide improvement in package design compared with the initial exhibit some seven years ago. Improvement is hardly the word. It amounts almost to a packaging revolution. The judges had a really tough time of it selecting winners in the various classes so numerous were really beautiful entries. And in most groups, we disagreed with the judges selections, agreed in a couple. So did a lot of other people who viewed the exhibit and expressed an opinion.

Yes, sir, pressure packages have come a long way as far as beauty and shelf attractiveness are concerned. In fact, package improvement has come along much faster, we feel, than product improvement. Surely there have been strides forward in stepping up aerosol product quality, but compared to the package we feel that quality has lagged. What value beautiful container if the formulation which it carries is faulty? Or of a quality not up to the standard of competitive conventional packages? Or because of formulation faults, the package refuses to function?

Witness the results of the survey made at the supermarket promotion in New Jersey. Witness the advice of two speakers at the recent CSMA meetings that product quality is vital. Without it, the first sale may be made, but hardly ever the second. We feel that this pattern fits more aerosol products than it should. Maybe the time is here to look into this more closely.



DIRECT FROM COMMERCIAL DISHWASHER TO TABLE

Hand polished? No! Washed and rinsed in a commercial dishwasher . . . but with one important difference. TRITON CF-10 was included in the built detergent used, and in the final rinse additive. More and more fine eating places now use this double protection to insure spotless crystal, china and silver.

Whether you recommend the use of either a detergent or a rinse additive based on TRITON CF-10 . . . or both . . . you'll be ahead in satisfaction and sales. Why make and sell commercial dishwashing compounds on price alone? Your customers are now looking for performance! Give it to them with TRITON CF-10. Write for formulating help.




Chemicals for Industry

**ROHM & HAAS
COMPANY**

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

TRITON is a trademark, Reg. U.S. Pat. Off. and in principal foreign countries.


TRITON CF-10

 **WARNING . . .** On several occasions in recent years, S. L. Mayham, executive vice-president of the Toilet Goods Association, has warned the toilet goods, cosmetic and associated industries about their advertising methods and claims. In a bulletin just issued, he warns them again in plain, blunt sentences. "Complaints have already been issued against some toilet goods' companies, and others we know are in the making," he says. And he offers the services of the Board of Standards of TGA to non-members of the Association as well as members to check advertising claims and also labels. He goes on to say that no advertising copy or label reviewed by TGA has ever been the subject of a complaint by FDA or the Federal Trade Commission.

Last month, we in turn pointed out that FTC is obviously girding up its loins to crack down on advertising all along the line: toilet goods, detergents, soaps, and a host of other things. Pressure from Congress, as Mr. Mayham also pointed out, on FTC to act promptly is strong. FTC is already adding to its staff for this purpose. Sooner or later, the bolt will come.

Said Mr. Mayham: "... a loss of faith in this industry's advertising by customers . . . would be a calamity." But the question is, how much faith has already been lost? Isn't it time to put a check rein on some ad agency boys?


* * * * *

 **BAR SOAP . . .** At the recent soap industry meeting in New York, one of the round-table discussions concerned bar soaps. The observation was made that no increase in per capita consumption for bar soaps has been noted for many years. Naturally, with yellow bar soap just about fading out of the picture. A couple of decades ago, this item was a big seller. Today, little or nothing. But toilet soap has continued to increase in consumption steadily for the past thirty years. The long-range curve is still upward. However, this gain is not sufficient to overcome the drop in yellow laundry soap which once was No. 1 in soap sales. Honestly, there is no reason in the world why the two products should be counted together or even discussed together simply because they are both "bar soaps."

Another point of interest at this round-table

discussion was the statement that doubt exists about personal cleaning habits in America, that we are "now past the point of using more soap per person." We don't know on what this statement is based. From where we sit, it appears without foundation. The mass users of toilet soaps are constantly improving their lot, bathing more often. As the generations move on, the weekly bath becomes a bi-weekly ritual. Some day, it may become a daily affair. All evidence, we feel, points to the fact that people are getting cleaner. The great unwashed are now beginning to bathe occasionally. And there is still great room for improvement in personal cleanliness, tremendous room for expansion in toilet soap use. We feel such expansion is inevitable. We're still waiting for some evidence that toilet soap use is static.

* * * * *

 **WAX FUTURE . . .** Although today's floor waxes are a far cry from the original products which came on the market 30 years ago with the advent of the first water emulsion waxes, the future holds the prospect of even vastly superior self-polishing waxes. This is the prediction of Dr. J. V. Steinle, vice-president in charge of research and development for S. C. Johnson & Son. Based in part on some natural products and polymer emulsions, waxes of even higher gloss will be common. They will resist wear under normal traffic for several months. They will regain their original gloss with buffing. They will be impervious to spotting by water or even soap and water. And they will be removable quickly and easily.

That improved quality of most floor waxes has been a considerable factor in steadily rising sales of the past decade, we believe, is apparent. For some years, the wax industry tried to tell the American public what it, the public, should have in a self-polishing floor wax. Technical limitations obviously were involved in this attitude. But the public did not cotton to the idea. When wax manufacturers gave the public what it wanted, sales sprouted. What they plan to give the public in the future should keep them sprouting. Improvements of the past few years have been really stimulating to the wax business. Over the next ten, they can be even more so.

New **BTC-2125**

(Our 50th Anniversary Achievement)

**. . . for higher
germicidal activity
at no increase
in cost!**

Onyx BTC-2125 is a most potent germicide that offers the best sanitizing and disinfecting properties to your product. There is no substitute for this blend of two distinct quaternary ammonium compounds. BTC-2125 is designed to obtain

maximum biocidal properties and high hard water tolerance levels. Formulate your detergent sanitizers based on BTC-2125 . . . the germicide that gives you more for your money. Write for technical bulletin and samples.



Onyx Oil and Chemical Company

JERSEY CITY 2, NEW JERSEY

as the reader sees it . . .

Phenol Paper Faults

Editor:

I am enclosing a copy of a letter that I wrote to the authors listed concerning an article published in the October, 1958, issue of *Soap & Chemical Specialties*.

I wish to point out that the criticism is in the spirit of promoting true scientific discussion and not in the sense of fault-finding or casting discredit on the authors. I would appreciate the same if the paper had been mine.

Eric Dudley Robinson,
Assistant Quality Control
Director,
Plough, Inc.
Memphis, Tenn.

ENCLOSURE

September 15, 1959
Pesticide Regulation Section
Plant Pest Control Division
U. S. Department of Agriculture
Washington, D. C.

Attention: Mr. L. S. Stuart
Mr. L. F. Ortenzio
Mr. J. L. Friedl

Gentlemen:

In the October, 1958 issue of *Soap and Chemical Specialties*, beginning on page 79, there is an article entitled, "Variation in Phenol Coefficient Testing," which was presented by Mr. Friedl at the 44th Midyear meeting, Chemical Specialties Manufacturers Association, Cincinnati, Ohio, on May 20, 1958.

I wish to point out some errors in the statistical approach in your paper. In reviewing the paper again I found a minor error which did not cross my mind when I first read your article a year ago.

In the title "Coefficient" is spelled "Coefficient."

In each of your three tables you have data from Operator #1 and Operator #2. Since you have gone to all the trouble of statistically analyzing your data under each operator, it is naturally presumed that you are going to measure the difference between the two operators. Is there a real and significant difference between the operators?

First, I would like to know why the two separate means in each case were pooled? After all there would be no point in keeping the 25 determinations of Operator #1 separate from those of Operator #2.

When data of this nature is lumped, we are assuming that one operator has performed all 50 determinations.

The means for each operator, as

an example from Table-1 1302.8/25 may be significantly different from 1360.2/25 which is 52.1 and 54.4 for operators 1 and 2, respectively.

The divergence in "means" should be tested for first. There may or may not be any significant difference. In other words the "operators" may or may not be alike.

The serious error was made when you calculated the standard deviation. You will see that you found the average of the individual deviations. What you have found was the mean deviation of the pooled data of both operators. What you should have done was divided 515.83 and 333.19 by $n-1$ or 25-1, which is 24, and this would give you "sigma-squared" or the variance, which is 21.493 and 13.883 respectively. By not taking the square root of each variance for each operator you arrive at the standard deviation, which is 4.636 for Operator #1 and 3.726 for Operator #2.

From the data of Table-1 it becomes apparent that Operator #1 experienced more variation than did Operator #2. How much more?

Here again we should test the difference between variances. Here the F-test for variance ratios is used, while in the test for "means" the t-test is used.

Since the standard deviation was

incorrectly approached, your 95% or 2-sigma limits are off.

This error has been repeated in the same way in both Tables 2 and 3.

You report the Coefficient of Variation. Your method is correct; however, your wrong standard deviation will necessarily give the wrong result.

I believe if the "operators" had shown no significant difference at the 95 or 99% level, then all the data could be lumped. The impression is that you are also studying operator differences, as well as techniques, etc. in this paper.

I regret that I did not draw your attention to these points last October when I first came across the article, because it would have lessened the chance of a reader arriving at a wrong conclusion, as the weight of your tests was dependent upon the statistical analysis of your results.

I respectfully submit this letter to you in good faith.

Very truly yours,
PLOUGH, INC.
Eric Dudley Robinson
Quality Control Department

EDR/no

Reuben Houk Dies

Reuben B. Houk, 72, perfumer for Shulton, Inc., New York, and responsible for its "Old Spice" fragrance, died Jan. 20. He joined Shulton in 1953 and was previously with Dodge & Olcott, Inc., New York, for many years.

Following the recent NBC network telecast of the first "Breck Sunday Showcase" TV series of "specials", "The Margaret Bourke-White Story", a reception was held in New York City for the show's stars and others connected with the presentation. Edward J. Breck, center, president of John H. Breck, Inc., Springfield, Mass., receives some camera tips from famed candid photographer, Alfred Eisenstadt, left, while Eli Wallach, right, looks on. Mr. Eisenstadt, a close personal friend of Miss Margaret Bourke-White whose life story, in television form, was sponsored by the Breck company, was portrayed by Mr. Wallach, star of stage and screen.



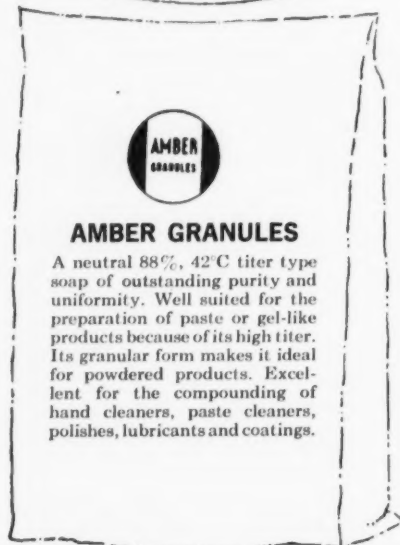
THERE'S A PROCTER & GAMBLE PRODUCT FOR EVERY FORMULATION NEED



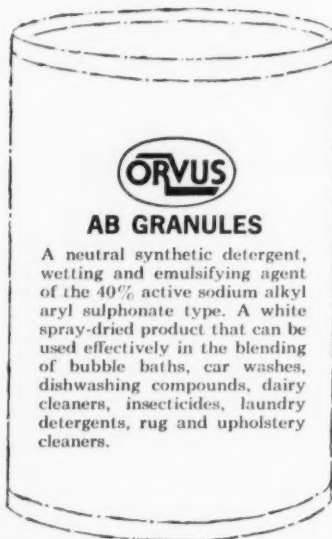
Kyro
A neutral nonionic synthetic detergent of the 100% alkyl-phenol ethylene oxide condensate type. A light-colored liquid with a clean, pleasant odor. Its superior detergent, wetting and emulsifying properties offer excellent performance in liquid detergents, sanitizer detergents, self-emulsifying solvents, laundry detergents, glass, textile and dairy cleaners, insecticides, and bottle washing compounds.



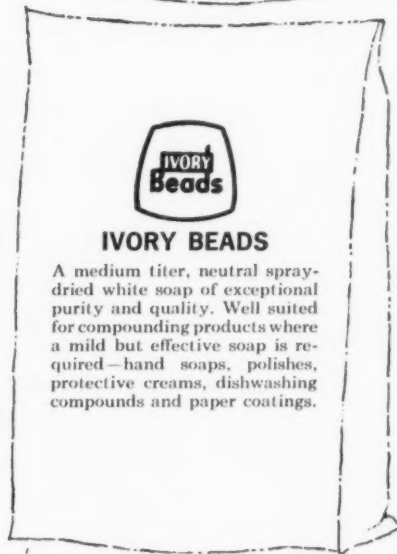
ORVUS
WA PASTE
A neutral synthetic detergent and wetting agent whose active ingredient is mainly sodium alkyl sulphate. Excellent sudsing, wetting, dispersing and penetrating properties. Ideal for paste and liquid shampoos, bubble baths, liquid detergents, liquid car washes, liquid floor cleaners, insecticides, glass cleaners, rug and upholstery cleaners.



AMBER
GRANULES
A neutral 88%, 42°C titer type soap of outstanding purity and uniformity. Well suited for the preparation of paste or gel-like products because of its high titer. Its granular form makes it ideal for powdered products. Excellent for the compounding of hand cleaners, paste cleaners, polishes, lubricants and coatings.



ORVUS
AB GRANULES
A neutral synthetic detergent, wetting and emulsifying agent of the 40% active sodium alkyl aryl sulphate type. A white spray-dried product that can be used effectively in the blending of bubble baths, car washes, dishwashing compounds, dairy cleaners, insecticides, laundry detergents, rug and upholstery cleaners.



IVORY
Beads
A medium titer, neutral spray-dried white soap of exceptional purity and quality. Well suited for compounding products where a mild but effective soap is required—hand soaps, polishes, protective creams, dishwashing compounds and paper coatings.



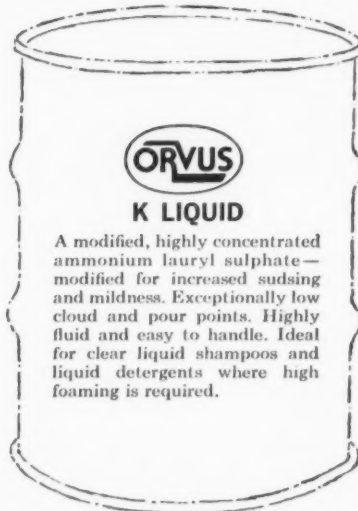
ORVUS
ES PASTE
A specially developed synthetic detergent whose active ingredient is mainly modified sodium alkyl sulfate. Offers exceptional efficiency and stability over a wide range of operating conditions. Its excellent wetting, penetrating, sudsing, dispersing and emulsifying properties make it well suited for the preparation of liquid shampoos, bubble baths, liquid detergents, liquid floor cleaners, insecticides, car washes, emulsion cleaners.

Procter & Gamble will gladly supply you with information on how you can save time and money when you formulate with Procter & Gamble products. You can also get technical help in connection with their use by writing to:



Procter & Gamble

BULK SOAP SALES DEPARTMENT
P. O. BOX 599, CINCINNATI 1, OHIO



ORVUS
K LIQUID
A modified, highly concentrated ammonium lauryl sulphate—modified for increased sudsing and mildness. Exceptionally low cloud and pour points. Highly fluid and easy to handle. Ideal for clear liquid shampoos and liquid detergents where high foaming is required.

Detergents . . . Cleansers . . . Soaps . . .

Aerosols

Detergents

Dishwashing Compounds

Floor scrubs

Glycerine

Hand cleaners

Laundry soaps

Liquid soaps

Metal cleaners

Potash soaps

Scouring cleansers

Shampoos

Shave products

Soap powders

Starch

Steam cleaners

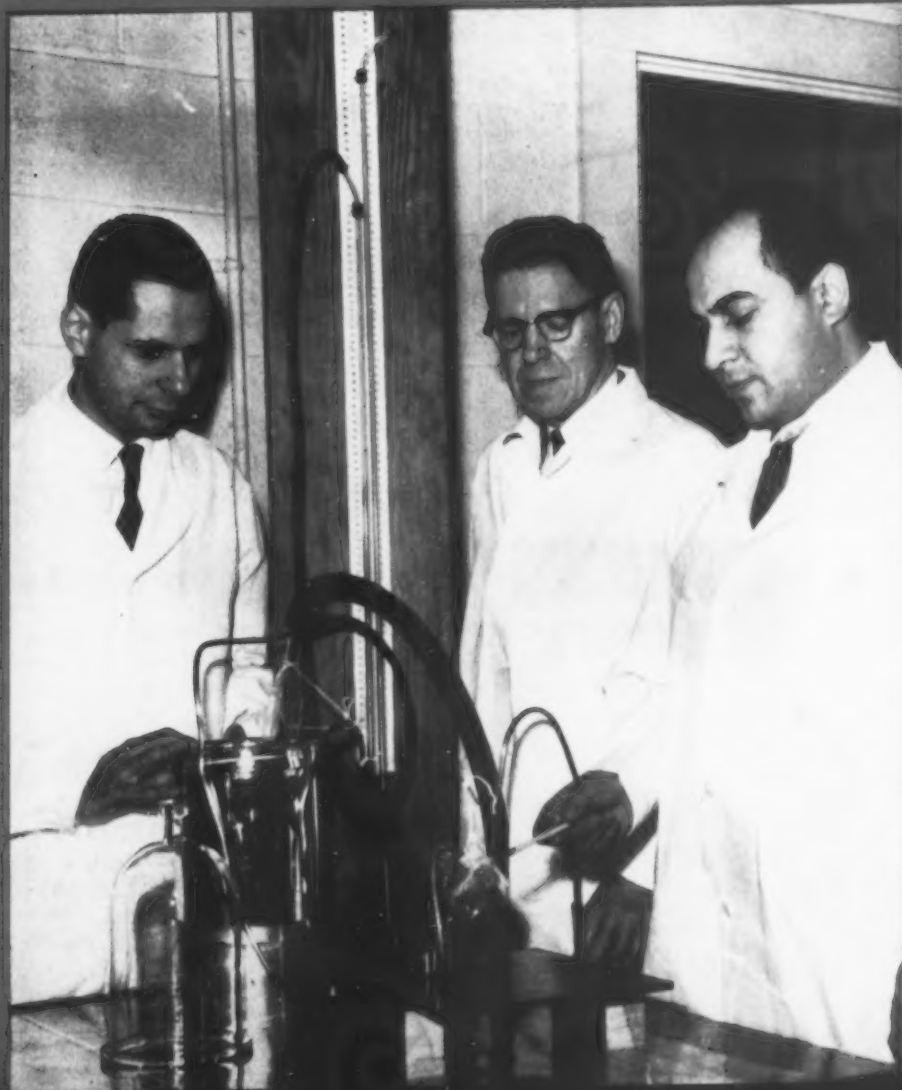
Medicinal soaps

Textile detergents

Toiletries

Toilet soaps
and other detergent
and soap products

Winners of first award in eighth annual Glycerine Research Awards, sponsored by the Glycerine Division of the Soap Association. Award, consisting of honor plaque and \$1000, was presented during 32nd annual meeting of AASGP last month. Recipients are, l. to r.: Drs. Stanley W. Jacob, assistant professor of surgery, University of Oregon medical school; Samuel C. Collins, director, Cryogenic Engineering Laboratory, M. I. T., and Ernest M. Barsamian, assistant in surgery, Harvard medical school.



EVERYBODY'S TALKING ABOUT LIQUIDS

Modern liquid detergents are here to stay and growing in popularity. Sales figures prove this conclusively!

Users readily accept the fact that liquids work well in any type water and that a small amount of concentrate does a big cleaning job. These are features you can easily demonstrate.

But what about comparative cost and ease of dispensing? Can these be proven or demonstrated just as convincingly?

The answer is unquestionably YES . . . with the help of a Dema Liquid Proportioner.

Users in every field have found that high-concentrate liquid detergents cost less than powdered materials—when used properly. And no other method of dispensing (manual or semi-automatic) provides the control or eliminates the guesswork so completely as a Dema proportioner.

This unique proportioning device attaches directly to the faucet and dispenses from any size bulk container through a flexible polyvinyl tube. It can be adjusted for a variety of liquid materials; and, once set, dispenses the same amount of concentrate every time for maximum efficiency and economy.

You'll find the Dema proportioner an ideal aid for conducting interesting sales demonstrations . . . the perfect way to show and sell the benefits of a liquid, plus the extra added features of an automatic proportioner!

If you would like more information on Dema's complete line of liquid proportioners...key to even greater liquid sales...write today!

DEMA

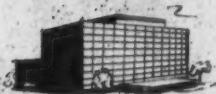
ENGINEERING COMPANY

Designers and Manufacturers of Automatic Dispensing Devices

702 E. Big Bend Blvd., St. Louis 22, Mo.



restaurants



hospitals



industrial plants



transportation



dairies + farms





Newly elected officers and directors of Soap Association at first meeting of new board during 33rd annual soap meeting in New York last month. From left to right: Franklin G. Meeker, Andrew Jergens Co., director; W. O. Robertson, A. Gross & Co., director; A. B. Hershberger, Atlantic Refining Co., director; Kenneth E. Fulton, Beach Soap Co., director; John M. Hoerner, Armour & Co., director; Milton C. Mumford, Lever Brothers Co., director; Howard Young, Davies-Young Soap Co., director; John L. Christian, Monsanto Chemical Co., director; A. C.

Stoneman, representing A. C. Pelletier, Purex Corp., vice-president for the west. Seated, l. to r.: N. S. Dahill, John T. Stanley Co., treasurer; E. H. Farnham, Dow Chemical Co., director; Andrew K. Forthmann, Los Angeles Soap Co., president; Ralph A. Hart, Colgate-Palmolive Co., vice-president for the east; Arthur W. Schubert, Emery Industries, Inc., vice-president for the mid-west; and Howard J. Morgens, Procter & Gamble Co., director. Not present for photo: Roy Peet, secretary; M. A. McManus, Lever Brothers Co., ass't treasurer.

Soap Meeting Previews '60's

A FAR ranging array of topics was presented for discussion during the 33rd annual meeting of the Association of American Soap & Glycerine Producers, held Jan. 20-22, at the Waldorf-Astoria Hotel, New York. The theme of the convention, "Challenges of the Sixties — in Soaps, Synthetic Detergents, Fatty Acids and Glycerine," pretty well sums up the objective of the meeting. To discuss ways to meet these "challenges," a collection of experts on eight different subjects pertaining to soap and detergent production and marketing were gathered for concurrent round-table discussions. The experts acted as discussion "leaders".

As part of the regular annual meeting of the Soap Associ-

ation, the three divisions of which AASGP is composed, met Jan. 20, the day prior of the formal opening of the soap industry meeting. The toilet goods industry as a market for glycerine and fatty acids was discussed in panels sponsored by the Glycerine and the Fatty Acid divisions. Papers read during the panels were presented by representatives of the toilet goods field. The program of the Industrial Division of the Soap Association featured a seminar on "Methods of Performance Screening of Industrial Cleaners." Representatives of five major fields of consumption of these products spoke.

The Fatty Acid Division symposium Jan. 20 was entitled "A New Look at Fatty Acids and Derivatives in Toilet Goods." T.

H. McGuine, chairman of the Fatty Acid Research and Technical Committee, presided. Mr. McGuine is research director of Wilson Martin Division of Wilson & Co.

The symposium opened with a paper entitled "Fatty Acids and Ester Derivatives Produced for Toilet Goods—Some New Developments," by John Hardiman of Kessler Chemical Co. A lengthy abstract of Dr. Hardiman's paper begins on page 59.

Dr. Hardiman was followed by Gabriel Barnett of Coty, Inc., who spoke on "Today's Trends in Formulations as They Affect The Use of Fatty Acids and Derivatives." This paper is abstracted at length beginning on page 141.

Last speaker in the fatty

acid symposium was J. Kenneth Kirk, assistant to the commissioner, Food & Drug Administration, Department of Health, Education and Welfare, Washington, D. C. Mr. Kirk discussed "Additives Legislation Affecting Foods and Cosmetics." Dealing with the cosmetics aspect of his title first, he said:

"All cosmetics moving in interstate commerce, including those offered for import from other countries are subject to the basic provisions of the Federal Food, Drug, and Cosmetic Act. The cosmetic section of this law has remained essentially unchanged since its enactment in 1938, so perhaps we need not discuss these provisions in detail now. Developments in recent years which have shown certain weaknesses in this law, resulting in real injury to users from some cosmetic products, have pointed up the need for strengthening this law, by a requirement for pretesting of cosmetics prior to marketing them.

"Originally the need for such legislation was discussed in the reports of the hearing held by a committee of the House of Representatives several years ago. Two bills dealing with this subject are currently pending before the Congress and the subject is being given extensive consideration by the Department of Health, Education, and Welfare.

"Those of you who deal with the cosmetic industry are, of course, well aware of the urgent need for color additive legislation. A Color Additives Bill was passed by the Senate just at the close of the last session of Congress, and the House Committee on Interstate and Foreign Commerce has scheduled hearings on the Color Additives Bill to start on January 26, 1960."

Turning to the question of food additives Mr. Kirk pointed out that the Food Additives Amendment to the Federal Food, Drug and Cosmetic Act is scheduled to become fully effective on March 6, 1960, subject to one year extensions of the effective date for specific substances. Speaking of fatty acids as food additives Mr. Kirk took pains to stress that oleic and stearic acids *per se* are safe. However, when subjected to high temperatures and pressures, they undergo profound changes which result in the production of small amounts of toxic materials. He said "When we discover what this substance is and devise a chemical test, or, if necessary, use the bioassay test for this material, then



Newly elected steering committee of the Industrial Division of Soap Assn., seated, l. to r.: G. H. Packwood, Jr., G. H. Packwood Manufacturing Co.; Balfour J. Augst, Armour & Co., vice-chairman; Howard Young, Davies-Young Soap Co., chairman; and Frank J. Pollnow, Jr., Vestal, Inc. Standing, l. to r.: J. H. Clark, U. S. Sanitary Specialties Corp.; Earl Brenn, Huntington Laboratories, Inc.; J. L. Jones, Sugar Beet Products Co., and C. L. Weirich, C. B. Dolge Co. Missing from photo: Kenneth Fulton, Beach Soap Co. and Melvin Kamen, Kamen Soap Products Co.

fatty acids can be used in foods under specifications utilizing these tests."

The combined Fatty Acid, Glycerine, and Industrial Divisions luncheon which followed the Fatty Acid Symposium, was presided over by W. O. Robertson. Mr. Robertson, chairman of A. Gross & Co., heads the association's Fatty Acid Research and Technical Committee. After luncheon he presented the Fatty Acid Veteran of the Year Award to Dr. E. H. Bluman, former vice-president of the Harchem Division of Wallace & Tiernan. Dr. Bluman retired last year from his post as vice-president and currently acts as consultant to Harchem.

This ceremony was followed by the presentation of the annual Glycerine Research Awards by N. L. Gianakos of Shell Chemical Co., chairman of the Glycerine Research Committee. The annual awards were established in 1952 to recognize new and independent research broadening the base of useful applications for glycerine and derivatives. The top award, \$1000 and an honor plaque, was presented to Drs. Ernest M. Bar-

samian, Harvard Medical School, Stanley W. Jacob, University of Oregon Medical School, and Samuel C. Collins, Massachusetts Institute of Technology. They were honored for their research on supercooling dehydrated hearts with glycerine, prior to transplantation.

Another three man research team, including Drs. John O. Almquist, Robert J. Flipse, and Wayne T. O'Dell of the Pennsylvania State University's Dairy Research Center received \$300 and an honor certificate for work done on glycerine as an additive for cattle insemination.

Dr. John E. Jackson and W. O. Lundberg of the University of Minnesota's Department of Agricultural Biochemistry were honored for research on the preparation and properties of pure symmetrical and unsymmetrical mixed triglycerides of stearic and linoleic acids and their intermediates. They received \$200 and honor certificates.

A special Glycerine Application Research Award went to a team of engineers associated with Lansdale Tube Co., Division of Philco Corp., for the development

of glycerine baths for electrodeposition of various low melting point metals and alloys. This development permits the application of mass production techniques to the soldering of small wires for transistors. The application award was presented for the first time this year.

The concluding feature of the luncheon, an address on the coconut oil outlook by Duncan Ridler, of the Fats and Oils Section, FAO, United Nations, Rome, begins on page 51.

Following the joint division luncheon the Glycerine Division met to take a "New Look at Glycerine and Derivatives in Toilet Goods." W. W. Bray, manager of the glycerine sales department of Procter & Gamble Co., and chairman of the association's Glycerine Steering Committee, presided at this symposium. First of the four speakers was S. L. Mayham, executive vice-president of the Toilet Goods Association, his subject: "The Toilet Goods Industry in the 60's." Mr. Mayham expressed the belief that favorable trends which dominated the industry in the past decade will continue into the 1960's. Outlining the growth of toilet goods sales in the recent

past he gave the following figures: In 1940 sales amounted to \$150 millions and rose to \$711 million by 1945, an increase of 40 per cent. In the next five years the volume rose another 18 per cent to \$840 million in 1950. From 1950 to 1958 it increased 80 per cent to a total of \$1,523 million. In 1948 sales had amounted to \$749 million, which means that the toilet goods volume has increased by almost 100 per cent in the last decade. This spectacular growth was attributed by Mr. Mayham partly to the emergence of new products and partly to inflation.

While the growth rate may level off a little in the coming decade, the outlook is equal to the 50's in Mr. Mayham's view, who foresees the addition of many more new products to the range of available toilet goods.

Regarding the role of glycerine in cosmetics he stressed the need for further research to provide scientific proof of its functions and to establish their mechanism. He offered the rostrum of the Scientific Section of the Toilet Goods Association to any investigator presenting original work elucidating the value of glycerine in cosmetics.

Fred H. Snyder, M.D., of

Procter & Gamble's research division spoke next on "Glycerine in Cosmetics — Some Relationships to the Biology of the Skin". Dealing mainly with the moisture balance of the skin Dr. Snyder called for more research to establish the role that glycerine and other cosmetic ingredients can play in this important field.

Paul G. I. Lauffer, director of research for Northam Warren Corp., Stamford, Conn., presented a study entitled "Glycerine, a Versatile Medium in Cosmetic Formulation". Among an encyclopedic list of cosmetic uses for glycerine Dr. Lauffer mentioned its application as a foam stabilizer in shampoos and shaving creams. Not in itself a foaming agent, glycerine can greatly lengthen the life of a bubble. This effect is probably connected with humectant properties and viscosity of glycerine as well as with its surface tension, according to this speaker.

Glycerine and its derivatives have played diversified roles in the detergent field, S. J. Strianse of Yardley International stated in a paper entitled: "Glycerine and its Derivatives in Modern Cosmetics". Glycerine has been partially esterified with coconut fatty acids to yield an intermediate product containing one or more hydroxyl groups susceptible to sulfation. This glycerine containing detergent, a sulfated monoglyceride of coconut fatty acids, has been and is still used in a very successful commercial shampoo, Mr. Strianse reported. The mildness and effectiveness of this detergent in shampoos can be attributed to the glycerine portion of the molecule, in Mr. Strianse's opinion. He continued: "Glycerine monoesters of fatty acids and their acetylated counterparts have been used in shampoos to improve hair conditioning or to change the physical appearance of the product, such as producing opacity or increasing viscosity to produce a cream shampoo. In addition, these features are accomplished without undue loss of foam.

W. O. Robertson, A. Gross & Co., chairman of the Fatty Acid Division steering committee, left, presents "Fatty Acid Veteran of the Year Award" to E. H. Bluman, retired vice-president of Harchem Division of Wallace & Tiernan Co., and former chairman of the Fatty Acid Division.



"Glycerine itself has been added to detergent systems (such as shaampoos) as a thickener and to impart gloss and softness to the hair", Mr. Strianse concluded.

A. K. Forthmann, president of the Soap Assn. and head of Los Angeles Soap Co., presided at the general session, the morning of Jan. 21. He officially opened the convention by extending a brief welcome to participants. He then introduced Erwin D. Canham, editor of the *Christian Science Monitor* and president of the United States Chamber of Commerce. Mr. Canham spoke on "The Moral Case for American Capitalism". Terming our current state a period of balanced economic power, he pointed to the mutually equalizing and controlling influences of big labor unions, big corporations, and government. To maintain this balance, essential to the survival of capitalism, we must "close the gap between our promises and our performances", Dr. Canham declared. The round table discussion followed Dr. Canham's address.

Top honors in eighth annual Glycerine Research Award Competition, sponsored by the Glycerine Division of the Soap Association, went to three medical doctors for their work on the long term preservation of entire human organs with successful transplantation using a combination of mechanical dehydration and glycerine saturation. N. L. Gianakos, right, of Shell Chemical Corp., New York, chairman of the Glycerine Research Committee, presents first honor plaque to Dr. Ernest M. Barsamian, assistant in surgery, Harvard Medical School, at luncheon on Jan. 20. Dr. Barsamian accepted on behalf of his colleagues, Drs. Stanley W. Jacob, assistant professor of surgery, University of Oregon Medical School, and Samuel C. Collins, director, Cryogenic Engineering Laboratory, Massachusetts Institute of Technology.



Milton C. Mumford, president of Lever Brothers Co., presided at luncheon and introduced the 1959 committee chairmen. Featured speaker was Ray Scherer, White House correspondent for National Broadcasting Corp. Entitled "Eisenhower — The Personal Diplomat" Mr. Scherer's talk actually was a personal account in diary form of the President's recent Far Eastern trip.

An increasingly prosperous and discriminating consuming public and the question of automated processing are among the main trend makers in today's soap, detergent, and related specialties industries. This sums up the general impression of the eight concurrent discussion groups in the morning session, Jan. 21.

Convenience and specialization are the main prerequisites for a successful new packaged detergent according to participants in a discussion on "New Products and Raw Materials — New Avenues of Approach". Discussion leader at this table was Peter B. Baker,

Arthur D. Little, Inc., assisted by R. B. Wearn of Colgate-Palmolive Co. as recorder.

The question was raised whether the soap and detergent industry is a true growth industry, with consumption rising ahead of population increase. A rise in per capita consumption of packaged soaps and detergents was recorded in the recent past. Does this rise of consumption represent a real increase in per capita consumption of soaps and detergents? Production of synthetic surfactants has been growing at the rate of about 10 per cent a year, according to figures published by the Tariff Commission. However, these statistics include materials not used primarily for cleaning.

Looking at factors affecting consumption trends and product types the group came to the following conclusions:

Substitution of liquid solutions for solid powders may account for some of the rise in per capita consumption. The change from soaps to synthetic materials of greater per pound activity may have obscured rises in per capita consumption in the early postwar period; now that this change is largely complete, we may see a real rise in per capita consumption. The proliferation of special products for specific cleaning purposes may be leading to a real increase in per capita consumption.

A number of factors were discussed which may have an effect both on per capita consumption and on the types of products which will be sold. Greater use of convenience packaging may reduce the use of cleaning products for dishwashing. Disposable textile products will have an effect on laundry detergents. Within the coming decade disposable diapers and disposable domestic linens and bedding will find increased use. In the longer term future, disposable clothing too may have an effect. Increased leisure time and the growing number of working women in the economy are factors in creating markets for products in more convenient form.

More highly automatic laundry equipment is on the market and will grow rapidly in the coming decade. By 1970, probably over half of all home laundry installations will have dispensing equipment for laundry detergents and auxiliaries. Equipment of this sort will require easily dispensed products, probably liquid but perhaps tablets or capsules.

Automatic dispensing will reduce over-usage in some cases but will probably correct at least as many cases of under-usage. The cost of more highly
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What's ahead in the '60's for Coconut Oil?

By Duncan Ridler*

Food and Agriculture Organization of the U. N.
Rome, Italy

THE more one travels in the coconut growing area and gets to know the people of these newly independent nations, the more one realises that the long term changes underway cannot be judged or forecast by the ordinary tools of the economist. On the other hand, it is pretty certain that the scientist and industrialist are going to make fresh discoveries changing the uses for fats and oils in the next few years. In looking ahead to 1970, therefore, I do not have the temerity to put any predictions into figures, and have limited myself to looking at current developments, underlining those which appear likely to continue to have a significant influence on the situation.

In the present fats and oils market, coconut oil is the leading commodity obtained through international trade. Exports reached a peak of 2.9 billion pounds in 1956 and 1957, as compared with around 2.2 billion pounds for some other important fats. Supplies of the second most important lauric oil, palm kernel oil, are around 900 million pounds. At the beginning of the 1960's the main features of the world coconut oil picture are:

Supply:

- (1) Predominant position of the

Philippines as the source of well over a half of the requirements of non-producing countries in normal years;

- (2) Changing and uncertain position of Indonesia as a major exporter;
- (3) Rather steady volume of imports obtained from other areas, in total around 900 million pounds, slightly below one third of requirements in recent years;

Demand:

- (1) Regularity of United States imports, around 600 million pounds and 20-25 per cent of total shipments;

- (2) Strongly expanding character of the West European market, normally somewhat in excess of a half of world imports;

- (3) Moderately expanding shipments to all other destinations, which reached 730 million pounds in 1957, about a quarter of all purchases.

There are then two main components of the flow of trade which have been changing significantly—Western European demand which has absorbed the bulk of the extra supplies available up to 1957, and which has borne the brunt of the shortages in 1958-59,

Copra, foreground, drying on Philippine coconut plantation. Oil extracted under pressure from copra is used in manufacture of soaps, margarine, etc. Copra actually is dried coconut meat.

Philippine Association photograph



*Paper presented at the 33rd annual convention, Ass'n of American Soap and Glycerine Producers, New York, Jan. 20, 1960.



Soap cutter and plodder in plant of Philippine Manufacturing Co., a subsidiary of Procter & Gamble Co., Cincinnati. Plant utilizes coconut oil from local sources for use in soap making.

Philippine Manufacturing Co. photo

and Philippines supply which has provided the world market with extra quantities up to 1957 and kept it short in 1958 and 1959. These will also continue to be the two crucial sectors in the situation in our view for the next few years.

For the world supply outlook in the 1960's, we really have to go back to the history of commercial coconut production. The area now under coconut may be somewhere in the region of 12 million acres, but acreage growth came to an end in the 1920's with the exception of the Philippines. Elsewhere the bulk of the commercial areas now being exploited came into being over thirty years ago. New land planting continued in the Philippines in the "Twenties" and "Thirties, and over 750,000 acres are estimated to have been planted in the last twenty years. New land, suitable for coconut, economically and technically, is now considered limited. Apart from the Philippines, too many of the old plantings have been regarded as an investment to be drawn upon without making provision for the future. The economic value of the palm is generally considered to decline at 60 years, and the proportion of palms in

upper age groups is thought to be dangerously large in many areas.

Then, again historically, the main development in coconut growing has been by smallholders. Estate interests in most tropical areas have concentrated on other agricultural products, and over the years there has also probably been a drift away from coconut. This is one large primary tropical industry predominantly in the hands of the small indigenous farmer.

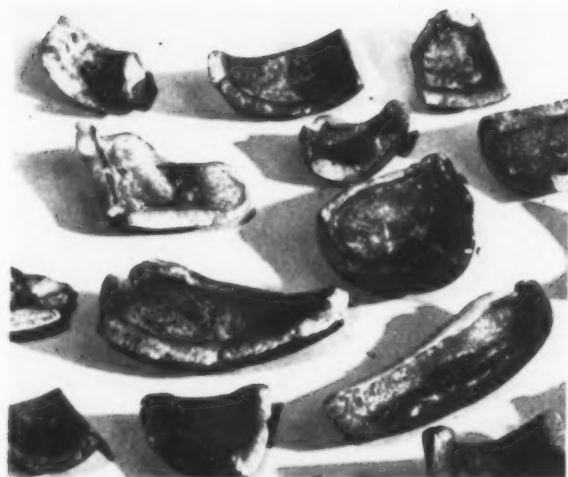
These two basic supply characteristics, the state of plantings and the number of small enterprises, set the background for what will happen in the 1960's. In our view exports will remain large, but some contraction from the peaks reached in the late 1960's has to be faced as a real possibility. We feel that although improvements can be made in a term longer than the next ten years, factors about which very little can be done will be crucial in the next few years. A reversal of the diminishing trend in output can only be achieved through the slow process of educating farmers and through rehabilitation measures whose effect will be felt mainly beyond the 1960's. There

are four main grounds for this conclusion.

Supply Trends

In the first place, the long term upward trend in world copra production is levelling or has levelled off, reflecting in the main the age composition of stands. This statement is made with some qualification, because it is based on long term series for world exports, supplemented by production estimates for the postwar period only. But the statistical evidence does point to a definite slackening of the trend in supplies, and suggests that this is not due only to increases in consumption by the producer countries themselves. Between 1921 and 1938 the trend in exports was at the average rate of 4 per cent upwards a year. In the postwar period the average rate of increase has been appreciably less. The overall rate has been 3 per cent, but this figure includes the effect of a cycle, the upper half of which seems to have been felt in most of the postwar period, certainly in the 1950's. How close to a zero rate of increase the long term trend now is cannot yet be measured, but much of the 3 per cent world rate of increase has been due to growth in the Philippines, and if that country is left out of the picture, the end of the upward trend is clearer. Indonesian output averaged an increase of 15 million pounds of oil a year in 1921-38. Since then there has been a persistent and considerable decline in exports. Admittedly in Indonesia there has been a large shift from export markets to shipments to Java, but in the islands for which there are some figures output has not been growing, and there has been little replacement of old trees in the last twenty years.

The remaining group of countries exporting copra shipped on an average about 22 million pounds more in terms of oil annually in the interwar period. Since then the peak levels of shipment reached are scarcely higher than



Close-up of dried Philippine copra, the dried meat of the coconut, from which oil is extracted for soap making. The oil is a hard fat, which produces abundant lather.

Philippine Manufacturing Co., photo

in the late 'Thirties, and output has fluctuated so widely that a trend is hardly distinguishable. It can only be said with certainty that nothing like the prewar expansion has occurred. Among these countries, some appear to have arrived at the limit of the momentum resulting from earlier plantings. Malaya is well past that point, and Ceylon may have reached that stage around 1956. In the South Pacific it is feared that the stage of diminishing returns has been reached on a number of islands.

Replanting

Although it is recognised that replanting is urgently needed in many areas, until recently only a small start had been made, either through private initiative or through state-wide organised programmes. The replanting of the 1950's does not seem to have been of a magnitude to offset the natural decline expected in the 1960's, and if expansion of production from the existing coconut stand is to be achieved it will have to come from the relatively young plantings in the Philippines, or from short term measures to raise productivity in other ways.

With regard to the more distant future, however, some effective planning is now being undertaken. Ceylon's rehabilitation programme has reached an annual replanting rate equivalent to just

over 2 per cent of the area. The cost to the government is estimated at approximately \$1 million a year, but by 1970 increased output resulting from this measure is expected to equal close to 100 million pounds of oil a year, of a value somewhere in the region of \$10 million. India's present distribution of high quality seedlings allows for the replanting of around $\frac{1}{2}$ per cent of the area annually, but it is proposed to increase the rate during the Five Year Plans operating in the 1960's. Although serious thinking on the subject of replanting is being done in a number of areas, and programmes may be accelerated when the urgency is more clearly realised, no quick or striking results can be hoped for. Unlike tea or rubber, high grade "clonal" planting material is not available for coconut and the spectacular increases in yields that can

be expected for coconut. It is now a race between planting and the natural decline of old trees, and I would hardly expect the growers to overtake nature in the world arena until very late in the 1960's at best.

Effect of Prices

The second major factor which may keep down exports in the next ten years is the probability of a cyclical downturn, if the previous history of cycles is repeated. In the past, there appears to have been an irregular cyclical movement around the long term trend. The rate of planting was apparently accelerated during periods of high prices, and fell off when prices were low. The maximum effect of prices upon subsequent production seems to make itself felt about seven years later. A percentage change in copra prices averaged over five year periods has been associated with a change in world exports 15 per cent as large seven years later. (For Ceylon, for which we have made a more detailed analysis, as much as 80 per cent of the variation around the output trend can be explained in this way). For the world as a whole, output increased more rapidly than the long term trend between 1923 and the mid-thirties as a result of favorable prices during and after the First World War. In the late 'Thirties exports tended to level off as a retarded effect of the depression years. For the postwar period, it

Filled copra-meal sacks are stacked in precise array at the warehouse of Philippine Manufacturing Co., P & G subsidiary in Manila.

Philippine Association photograph



is not possible to determine how far the rapid rise in copra prices from the war years up to 1951 contributed to the rise in exports up to 1957, or to what extent an increase would have taken place in any case, had prices been stable or declining. But we assume that the delayed effect of prices did operate to expand output, and that consequently the long term trend effect was much weaker than in pre-war years.

As prices were rather lower between 1952 and 1957, we should expect a downward phase of this cycle over the next few years. This is borne out by reports on plantings in the main exporting countries. By the same token, there might be an upturn in the late 1960's, considering the relatively high price level since the beginning of 1958, and the encouragement given to planting, unrelated to price movements.

Tree Disease

The third factor which may increasingly operate to put a brake on world trade is cadang-cadang disease in the Philippines. Not enough is yet known about the pace at which the disease is traveling, but it is undoubtedly a serious threat. It has developed in a period of 40 years, over an area now extending some 250 miles across. The spread of the disease has been alarmingly rapid since 1947. It is estimated that half of the bicol region of Luzon's coconut stand is affected and at least 7 million trees rendered worthless. It has been observed in Quezon province which accounts for one fifth of the coconut production of the Philippines. All available evidence indicates that cadang-cadang is a distinct disease specific to the Philippines, and it is ironic that its occurrence should be in the one area where the coconut stand is in the healthiest age category.

The cause of the disease remains unknown, and the only effective countermeasure so far conceived is to plant again behind the advancing front of its ravages.

A programme has been worked out with FAO assistance for the production of seedlings from survivors in heavily damaged areas. But this is a long distance remedy, and there will be little to counterbalance the spread of damage in the 1960's. All that can be hoped for in the next few years is that energetic and selective replanting will be undertaken, and that the search for a disease resistant variety through a long term breeding programme will eventually remove this threat to the entire Philippine coconut industry, without which world coconut oil supplies would undoubtedly decline very rapidly.

Consumption by Growers

One other development which will continue to exert downward pressure on world supplies available for exports is the growing use by producers of their own coconut oil.

Combined consumption in producing countries has risen by 75 per cent in the last twenty years. Since the beginning of the 1950's domestic consumption has risen by 40 per cent while output has grown by only 20 per cent. All producing countries now use an estimated 2

billion pounds of oil. Exporting countries consume today only about 30 per cent of their production and export 70 per cent, but the consumption of this group has risen from 1.1 to 1.5 billion pounds in the 1950's. This has meant that the proportion of copra output available to Western Europe, the United States and other non-producing countries has shifted from 65 per cent in prewar years to 55 per cent in recent years.

This trend will undoubtedly continue as populations grow and incomes rise in the underdeveloped producing countries. Even if the extra retention in the next ten years is only as large as in the last ten years, the quantity required would be equivalent to an increase in world exports of between 1 and 2 per cent a year.

These four factors then will act against expansion of international market supplies in the 1960's. They are weighty arguments, and I think they can hardly be counterbalanced by other measures open to producing countries, such as by increasing the productivity of mature palms or treating export markets as a priority.

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Margarine, like soap, relies on coconut oil as a raw material. In photo slip covers for cans of Philippine Manufacturing Co. margarine are turned out in Manila plant of P & G subsidiary.

Philippine Manufacturing Co. photo



Low Foam Nonionic Surfactants

By J. Dupré, R. E. Wolfstrom, and D. R. Ferdyce*,
Research Laboratories, Rohm & Haas Co., Bristol, Pa.

Modified nonionic surfactants having low foam properties, even under severe agitation, still retain their useful surface active properties.

FOR most uses the foaming properties of conventional nonionic surfactants are quite satisfactory. There are, however, a variety of specialized uses for which lower foaming surfactants are required. These applications are generally characterized by rapid mechanical agitation such as occurs, for example, in spray metal cleaning or in mechanical dishwashing. Low foam can often be achieved by the addition of defoamers but this approach generally does not give adequate wetting or detergency properties. It has been found possible, however, to prepare modified nonionic surfactants which have very low foaming properties even under severe agitation and at the same time still have useful surface active properties.

There are a number of synthesis methods for preparing these low foam modified nonionic surfactants. One useful technique is to introduce a second hydrophobic group into a conventional nonionic surfactant. This can be accomplished by several routes; for example, reaction of a hydroxyl group in the nonionic with a fatty acid, with an alkyl halide or with an alkyl isocyanate. This paper will be concerned with the solution and application properties of four modified nonionics, all of which have two

*Paper presented by Mr. Dupré during second annual meeting, Canadian Manufacturers of Chemical Specialties Association, Toronto, Nov. 3, 1959.

Table I. Solution Properties

Surfactant	Cloud Point at 1% (°C.)	cmc (wt. %)	Surface Area per molecule (Å ²)
A Exp. surf. 9D-212	19	0.03	153
B Triton CF-10	22	0.006	77
C Triton CF-32	25	0.38	195
D Triton CF-21	40	0.008	75
OPE _{7.5} Triton X-114	21	0.009	52
OPE ₁₀ Triton X-100	66	0.010	52
DDBS Sodium dodecyl benzene sulfonate	—	0.04	38

hydrophobic groups in their structure.

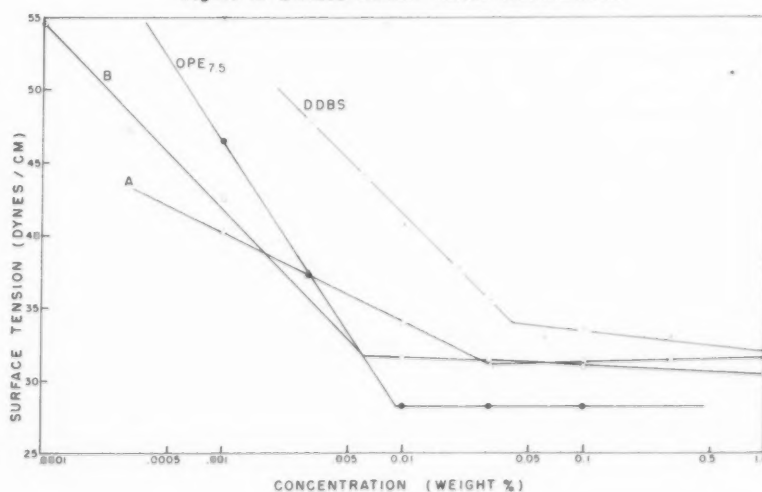
Solution Properties

Surface Activity: Four modified nonionics are listed in Table I, along with two conventional octyl phenyl poly oxyethylene nonionics

(OPE_N) and a common anionic surfactant, sodium dodecyl benzene sulfonate. All of the "Triton"* nonionics are commercially available. The 9D-212 material is a development product. The four

*Registered trademark of Rohm & Haas Company

Figure 1. Surface tension versus concentration



modified nonionics will be referred to as surfactants A, B, C and D in the remainder of the paper.

The critical micelle concentrations (cmc) and surface areas per molecule at the air-water interface given in Table I were calculated from plots of surface tension versus concentration. Typical data are plotted in Figure 1. Surfactants B and D have low cmc's and are similar in this respect to the conventional nonionics. A and particularly C, however, have substantially higher cmc's and also occupy considerably larger areas per molecule at the surface. The modified nonionics A, B and D and also OPEP_{7.5} are considerably more effective in lowering the surface tension at all concentrations than sodium dodecyl benzene sulfonate. Surfactant C is more effective than DDBS at concentrations below 0.01% and similar at higher concentrations.

Cloud Point: The solubility characteristics of these modified nonionics were examined along with those of the conventional nonionics. Of particular interest is the state of solutions of these materials above their cloud points since it is only here that the low foam properties exist.

Nonionic surfactants owe their solubility in water to hydrogen bonding between water and the ether oxygens in the polyethylene oxide chain. The degree of hydration is reduced with increasing temperature, and at some temperatures the solutions will abruptly change from clear to turbid. Above this cloud point, the system now consists of two phases, one of which is dispersed in the other. The turbidity is a result of the difference in index of refraction of the two phases. If the system is held at a temperature above the cloud point for some time without agitation, it will generally separate into two distinct clear phases. The composition of the two phases will vary considerably depending on the particular surfactant, its concentration, the temperature, and presence of salts. Generally the lower

Surfactant	Total Surf. Conc. (%)	Separation Temp. (°C.)	Composition of Upper Phase		
			Volume (%)	Conc. of Surf. (wt. %)	% of Total Surf.
OPE _{7.5}	10	35	39	0.13	0.5
	10	45	71	0.11	0.8
	1	35	94	0.03	3.0
	1	45	96	0.03	3.0
B	10	35	81	0.13	1.1
	10	45	86	0.07	0.6
	1	35	98	0.04	4.0
	1	45	99	0.03	3.0

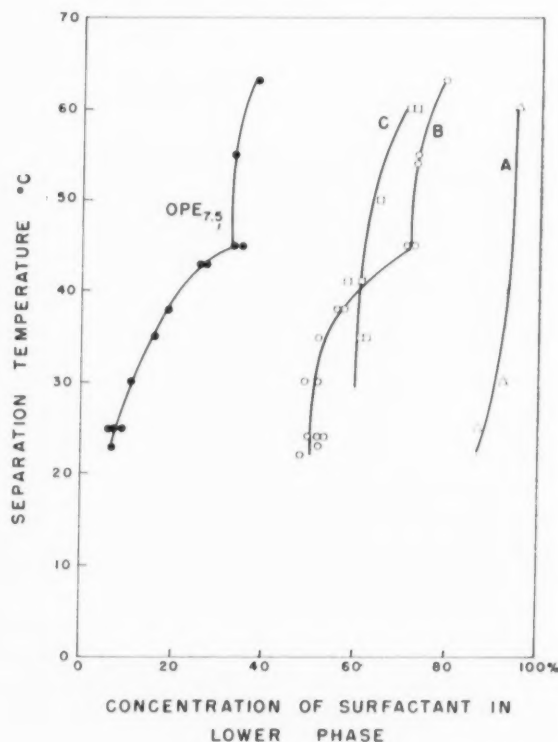
phase will contain most of the surfactant along with appreciable quantities of water. The upper layer will be a relatively dilute solution of the surfactant but usually the concentration will remain above the critical micelle concentration.

Some illustrative data are given in Table II. Solutions of the modified nonionic B and the conventional nonionic OPE_{7.5} were held at temperatures above their cloud points until they separated into two clear layers. Equilibrium was usually reached within three days. The phases were then iso-

lated and analyzed. The surfactant concentration of the dilute upper phases was determined by U.V. absorption.

With a 10% solution of OPE_{7.5} at 35°C., the upper phase occupies only 39% of the total volume and it is relatively dilute. Only 0.5% of the total surfactant is in this phase. The remaining 99.5% is, of course, in the lower, surfactant rich phase. When the temperature is raised to 45°C., the volume of the upper phase is increased markedly which means that an appreciable amount of water was driven out of the lower phase.

Figure 2. Phase separation



If the total amount of surfactant is reduced to 1%, the volume of the upper phase is increased. The concentration of surfactant in this phase is, however, reduced. The percentage of the total surfactant going into the upper phase is now increased to 3% and this percent will continually increase as the total surfactant concentration is lowered until the critical micelle concentration is reached. Below the cmc, there would be no phase separation.

It should be noted that the concentrations of surfactant in the upper phases in Table II while low are still above the critical micelle concentrations.

In the two phase systems described here, each phase is at its cloud point. This means that, if isolated, each phase will itself show phase separation upon a further increase in temperature. These nonionics are mixtures of varying polyethylene oxide chain length members and apparently some fractionation occurs. For example, the upper phase of a system separated at 45°C. has a cloud point of 45°C. while the original material had a

much lower cloud point. Hence the separated upper phase must now contain molecules with a higher average chain length than the original material.

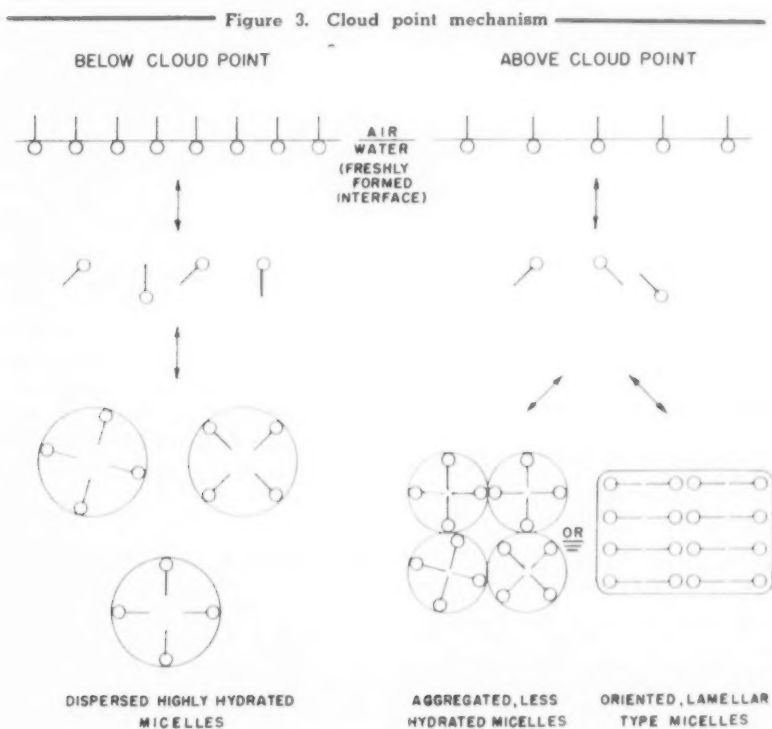
With Surfactant B, the concentrations of surfactant in the upper phase of separated solutions show essentially the same relationship with total concentration and temperature as did OPE_{7.5}. However, there is a significant difference in the volume occupied by these phases compared with those of OPE_{7.5}. At equal total concentration and temperature, the upper phase volume is greater with B. Therefore, the lower phase which again contains most of the surfactant has considerably less water than was found with OPE_{7.5}. This can be seen more readily in Figure 2, where the concentration of surfactant in the lower phase is plotted against the temperature of separation. The total concentration of the surfactant solution at each point is not shown since it was found that the concentration of surfactant in the lower phase is essentially independent of this. Differences in the total amount of sur-

factant merely change the volume of the lower phase but not the concentration of surfactant in this phase.

With the conventional non-ionic OPE_{7.5}, it can be seen that just above its cloud point of 21°C., the lower phase contains about 5% surfactant and 95% water. As the temperature is increased, water is removed from this phase but even at 60°C., the phase is only 40% surfactant and thus contains 60% water. The modified nonionics can be seen to give considerably more concentrated lower phases. With B, the minimum amount of surfactant that can be present in the lower phase is 50%. With A, the minimum surfactant concentration is 85%. That is, above the cloud point, no more than 15% water can be held by Surfactant A. It can be calculated that in the lower phase of OPE_{7.5} at 35°C., there are 22 molecules of water for each ether oxygen in the polyethylene oxide chain. The modified nonionics at 35°C. have only one to four molecules of water per oxygen atom in the polyethylene oxide chain.

Other data have shown that OPE₅ and OPE₁₀ also have a high degree of hydration comparable to OPE_{7.5}. Thus none of the conventional nonionics, including even the less soluble members, show the low degree of hydration of the modified materials.

The above observations suggest a reasonable explanation of the cloud point phenomenon which is illustrated schematically in Figure 3. Below the cloud point there is only a one phase system where the micelles are sufficiently hydrated so that they are colloidally dispersed. There is, of course, a dynamic equilibrium of surfactant molecules between micelle, solution and surface layer. Upon increasing the temperature, the degree of hydration of the micelles decreases until a point is reached at which they are not sufficiently hydrated for this system of colloidally dispersed micelles to be stable. As the degree of hydration is reduced, the attraction between



micelles would increase. A decrease in the binding of water by the ether oxygens releases secondary valence forces leading to a coupling effect between surfactant molecules as pointed out by Boedeker (1). The increasing micellar attraction leads to aggregation of the micelles at and above the cloud point. These aggregates along with their water of hydration form a second phase which is dispersed throughout the water phase. A somewhat different rationalization is offered by Weston (2) for cloud point. Because of reduced degree of hydration, the more hydrophobic molecules eventually cannot give a stable system with spherical type micelles. A stable system can be produced by the formation of a two phase system consisting of a concentrated solution in equilibrium with a dilute one. The concentrated phase contains lamellar micelles where the interfacial tension between the hydrocarbon portion and water can be sufficiently low in spite of the reduced hydrophilicity of the ethylene oxide chain. Here the free water present can be considered as localized in the polar portions of the oriented micelles and extensive free hydrocarbon surfaces can exist in other localized regions.

Foam: The effect of temperature on foam is illustrated in Figure 4 for three modified and a conventional nonionic. The first significant feature in this figure is the appreciable drop in foam shown by all these nonionics above their cloud points. Other data on this effect have been reported by other

investigators (3). As the temperature increases above the cloud point, the foam shows a further gradual decrease. The second point to be noted is that the modified nonionics have markedly lower foam above their cloud points than does the conventional nonionic. This holds true even for less water-soluble conventional nonionics such as OPE₅ and OPE_{7.5}. The modified nonionics above their cloud points will show low foam even under severe agitation; conventional nonionics will not.

The abrupt change in foam at the cloud point is believed to be the result of a rate effect. Referring again to Figure 3, below the cloud point the surfactant molecules can leave the micelles, diffuse to a new surface and adsorb and orient there at a certain rate. In the case of an entering air bubble, for example, the surfactant can apparently form a surface film quickly enough to stabilize the bubble and thus create a foam. Above the cloud point where most of the surfactant is contained in the aggregated or lamellar micelles, the rate at which surfactant leaves the micelle would be lessened. This would be expected because of increased molecular or micellar attraction and because fewer surfactant molecules are in contact with the water phase. Hence in a given time, fewer molecules can reach the newly formed surface to form a surface film and as a consequence the bubbles are not fully stabilized and foam does not result. Preliminary dynamic surface tension measurements have given some indication of a reduc-

tion in rate of surface tension lowering above the cloud point with Surfactants B, D, and OPE_{7.5}. However, further measurements are needed to confirm this hypothesis.

The difference in foam between the modified nonionics and the conventional nonionics could also be attributed to a rate effect. The observation that the surfactant rich phases of the modified nonionics above their cloud points are considerably less hydrated indicates greater micellar attraction in the aggregated micelles. This might lead to an even slower rate for the molecules leaving the micelles and hence lower foam. The rate of achieving the most effective orientation of molecules once they had reached the surface might also be slower with the modified nonionics. The presence of two hydrophobic groups in the same molecule, both tending to leave the solution, might reasonably increase the time for reaching a sufficiently low surface tension to stabilize air bubbles.

Foam in a dynamic situation is also a function of the rate of breakdown of the bubbles as well as their rate of formation. The lower foam of the modified nonionics could be a result of a lack of foam stability. With a conventional nonionic, the surface molecules can align themselves so as to permit a considerable amount of hydrogen bonding between the neighboring polyethylene oxide chains. This leads to a strong, elastic, stable surface film. With the modified nonionics, the presence of two hydrophobic groups could prevent close vertical packing at the surface and thereby reduce the intermolecular hydrogen bonding between the surface molecules and thus give a weaker surface film.

Application Properties

Machine Dishwashing: The beneficial effect of a surfactant on the efficiency of the usual alkaline blends used as a base for dishwashing detergents is well known.

(Turn to Page 91)

Table III. Foam and Defoaming Properties

Surfactant	Foam	Defoaming of Food Soils; Rotor rpm, 50-55°C			
	Hamilton Beach Test, 50°C., cm ⁽¹⁾	oleo:milk ⁽²⁾	egg ⁽³⁾	flour ⁽³⁾	milk ⁽⁴⁾
B	3-4	100	56	44	59
C	0-1	100	93	91	86
D	3-4	95	32	—	—
None (base alone)	—	45	20	10	8

(1) 0.1% surfactant, 5 sec., no base or soil; less than 5-6 cm. is considered satisfactory for dishwashing machines. OPE_{7.5} in this test is > 14.

(2) Kitchen Aid, 0.45% (40 gms.) detergent containing 2% surfactant. Sixty grams of 4/1 oleo/dry milk soil give 0.67% soil in the machine.

(3) 0.3% (27 grams.) detergent containing 1.25% surfactant. Ten grams of whole egg or flour are used to give 0.11% soil.

(4) 0.30% (27 gms.) detergent containing 0.67% surfactant. Twenty grams of dry milk used to give 0.22% soil.

Fatty Acids in Toilet Goods

By John Hardiman*

Kessler Chemical Co.
Philadelphia

THE rapidly expanding use of fatty acids and their derivatives may be attributed in part to the important advances in fat technology in the last decade which have assured us of an adequate supply of uniform, high quality fatty acids at reasonably stable and attractive prices. The development of more precise methods of quality control for fatty acids and their derivatives are an assurance of the availability and reproducibility of the special properties now demanded by the industries that use them. Instrumental analysis as applied to the acids, and to a lesser degree the esters, has divulged a wealth of knowledge concerning their composition and has enabled the technologist to study and utilize to greater advantage their functional elements. These facts plus the noble efforts of those who strive towards adoption of a uniform and meaningful nomenclature have done a great deal in stimulating interest in the potential of fatty acid products and advancing their status in the chemical industry.

While the toiletries industry alone is not responsible for promoting the development of high quality fatty acid products, it has been one of the most active. Advances in fatty acids have proceeded for the most part along the lines of improved quality from the standpoints of purity, better color, odor and stability. The classical triple-pressed type composition is now available with iodine values of approximately 0.2 or less. Similar low values are now possible in

the high purity grades of stearic, palmitic, myristic and lauric acids. While the problem of oxidation stability, odor and color degradation of saturated acids in no way approaches the magnitude of that presented by the unsaturates, much progress has been made in improving the quality of these acids.

Unsaturated acids have long been the bane of the cosmetic industry because of their inherent weakness to oxidation. Yet potentially, they hold the answer to many problems because of their physical properties. In the recent past, unsaturates have gained new levels of purity and stability. The reduction of polyunsaturates in oleic acid from 12 to 5% has been accompanied by worthwhile improvements in color, odor and resistance to oxidation. On the other hand, there is presently available a linoleic acid of 75% purity which has exceptionally good odor and color characteristics.

New Fatty Acids

Two new additions to the available members of the fatty acid series are erucic and behenic acids, in purities of approximately 80%. Erucic, the unsaturated C_{22} acid and behenic, its saturated equivalent, melt at 28°C and 70°C , respectively. On the basis of their properties it may well be expected that the soaps, esters, amine condensates and other derivatives of these acids will provide new and

unusual properties as emollients, opacifiers and surface active agents.

There is now available a saturated, liquid fatty acid which offers the solubility advantages of oleic acid and the stability associated with saturated acids. A skeletal rearrangement of unsaturated fatty acids having an 18C straight chain structure has produced a branched chain unsaturated fatty acid of the same carbon content which when hydrogenated gives a liquid rather than a solid product. (1) It combines a titer value of 3°C with an iodine value of 7. This structurally modified acid when evaluated for oxidation stability on the basis of time required to absorb a specified amount of oxygen, gave a value in excess of 100 days, as compared to oleic acid, 1-7 days, and double-pressed stearic acid, 25 days. (2)

Structural modifications of the fatty acids, such as the cleavage and polymerization of unsaturated acids at their C-C double bonds, has led to the formulation of a variety of low molecular weight acids and polymeric types, the derivatives of which have yet to be explored for their potential value to the cosmetic industry.

New and Improved Esters

As one might expect, the improvements in color, odor, heat stability and overall purity of fatty acids are reflected in the improved quality of their ester de-

Recent advances in fatty acids and ester derivatives widen scope and improve the characteristics of cosmetic formulations

*Based on paper read at 33rd annual convention, Ass'n of American Soap & Glycerine Producers, New York, Jan. 20.

rivatives. One cannot over-emphasize the importance of this development to the expanded use of ester derivatives as emulsifiers, opacifiers, emollients and solvents in cosmetic products.

The rate of influx into the market of available polyols and hydroxy compounds makes it almost impossible to consider all the derivatives potentially available through combinations with the various fatty acids. Many, like trimethylolethane, trimethylolpropane and trimethylolbutane, are of considerable interest because of their unusual structures and the potential they offer in the way of more functional components in cosmetics.

Lactated monoglycerides which might be considered an offshoot of the acetylated monoglycerides show considerable promise as emulsifying agents. The following derivatives are cited as examples on the basis of their unusual structural characteristics and their potential uses as surface active agents and other components of cosmetic formulations. Methyl glucoside has served as the basis of a series of esters ranging in properties from viscous liquids through soft gelatinous solids to hard waxes, melting at approximately 55°C. Surface tension measurements indicate appreciable reductions at levels of 0.01%. (3) Performance characteristics, evaluated in a series of creams and lotions, give promise of potential value as emulsifying and opacifying agents. Methyl glucoside is a water soluble, polyhydric alcohol, having four hydroxyl groups and two ether groups in its structure. It thus affords a multiplicity of solvating groups with strong hydrophilic character, solubilizing and solvent effects.

Unusual properties are offered by the series of polyesters formed by the reaction of various fatty acids, glycerol and short chain dibasic acids. These polymers containing multiple ester and hydroxyl groups range from low freezing oils to wax-like solids of varying degrees of resilience and

ranging in hardness from that of beeswax to that of completely hydrogenated cottonseed oil. Melting points of the polyesters which contain stearic as the fatty acid and in which the dibasic acid is adipic, fumaric or succinic extends from 35 - 670°C. (4)

Earlier we mentioned a structurally modified, liquid saturated fatty acid. It is interesting to note the properties of certain of its derivatives presently being used in cosmetics as emollients, opacifiers and emulsifiers. The *n*-butyl derivative has a pour point of -25°F in comparison to +65°F and -14°F respectively for the equivalent stearate and oleate esters. The glycerol monoester is probably the most unique in view of its pour point of 60°F against values of 133°F and 34°F for glycerol monostearate and glycerol monooleate. (2)

Structurally modified derivatives such as these hold the solution to many problems facing the cosmetic chemist, since they provide functionality, low freezing point with a minimum of unsaturation. A similar series of fatty acid esters has been developed in which the structural modification exists in the alcohol moiety rather than in the fatty acid. Cosmetic chemists are familiar with the wax-like character of the cetyl esters of the high molecular weight saturated fatty acids. While this property is often advantageous, it is also a hindrance to the use of these esters in a number of cosmetic formulations. We have now available a series of what might be called structurally modified cetyl esters, to which we have applied the designation "Isocetyl". Thus, in contrast, we have available esters of high emollient character, saturated, with low odor and color and with freezing points well below 0°C. (5)

Instrumental Analysis

New developments in fatty acids and esters of interest to the cosmetic chemist have been interpreted in terms of new products,

improved quality and new structural considerations. Another advance which warrants mention is the continuous progress in application of instrumental analysis and other methods of fatty acids and their derivatives. Gas chromatography has proven of immeasurable assistance as a means for the rapid determination of fatty acid composition. Preliminary studies on its application to ester analysis, in particular to the determination of monoglycerides, are indeed promising of its further value. (6) Methods for the analysis of ethoxylated compositions and polyethylene glycol esters give new insight into the compositions of this extensive series of surface active agents. Developments such as these are of interest to the cosmetic chemist. They assist in establishing sound scientific concepts on relations between performance characteristics and the composition of fatty acids and their esters.

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—★—

Sole in New Location

Sole Chemical Corp., Chicago producer of surface active chemicals, moved to new and larger quarters early this month at 7740 South Chicago Ave., Chicago 19. The move provides for the expansion of the company's manufacturing facilities as well as improving the coordination of its laboratories, warehouses, and offices, according to Solomon Epstein, president. Location of the plant is convenient to major highways and is on a waterway. Sole's surface active agents are used in the chemical specialty, maintenance, cosmetic, pharmaceutical and food industries.

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Ronald McIntyre, chief engineer for Cooper, McDougald & Robertson, Ltd., Berkhamsted, Herts., England, adjusts the 12-foot instrument panel on the new type pyrethrum extraction unit which his company installed in the Newark, N. J. plant of Prentiss. The unit, which employs a triple distillation process, is the first of its kind to be installed in the United States.



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In the last 30 or so years since the introduction of water emulsion floor waxes a revolution has taken place in the floor polish industry. Based on the changes that have taken place so far, what can the housewife expect in the next decade? For a look at the future of floor waxes turn to page 69 for article by the director of research for the largest U. S. wax maker.



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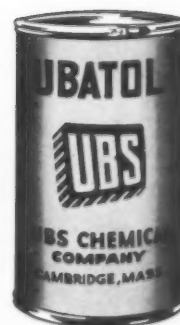
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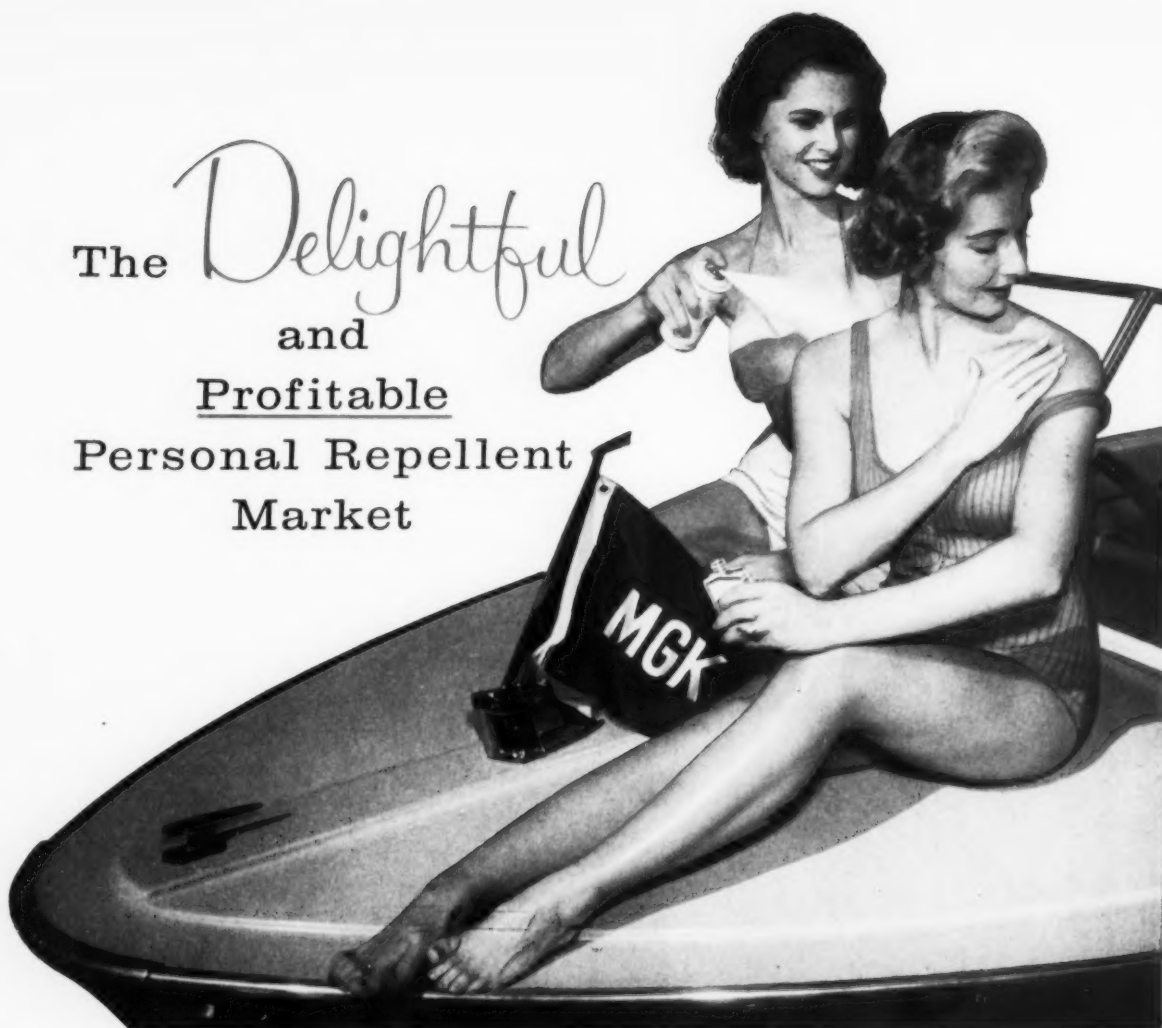


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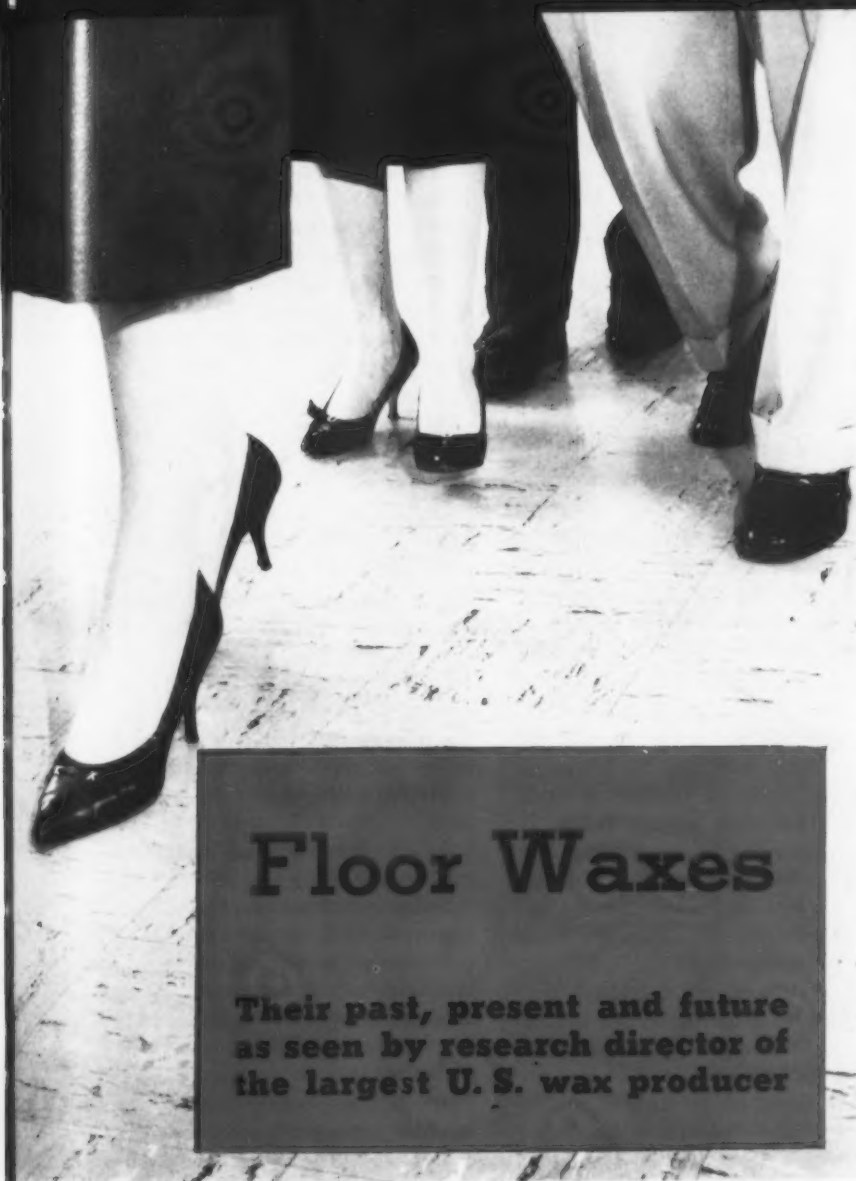
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Floor Waxes

**Their past, present and future
as seen by research director of
the largest U. S. wax producer**

By J. Vernon Steinle, Ph.D.

Research and Development Vice-President
S. C. Johnson & Son, Inc.,
Racine, Wisconsin

THREE factors, as I see it, will determine the floor finishes and polishes of the future. One obviously is the kind of flooring materials that will be used in the homes and buildings of tomorrow. The second is represented by the needs and desires of tomorrow's home makers and those charged with the maintenance of floors in schools, hospitals and public buildings. The third factor is

the technological advances in the development of new kinds of floor finishes and polishes from the laboratories of the wax makers.

With regard to the first factor we may ask: "What's going on in the laboratories of flooring manufacturers? What kind of flooring materials are in our future? Will they be harder, tougher, denser, less absorbent than those we now have? Will they be lighter in hue, more colorful?" Today we have wax products that do a good job on the

vinyls, linoleums, asphalt tiles, rubber, wood, and cork floors. We have finishes that protect against wear and staining, make cleaning easier, guard against discoloration. And these products become increasingly easy to use. But we must ask ourselves whether they will be adequate should entirely new flooring materials appear on the market.

With regard to the second factor we must recognize that changing consumer demands, new kinds of dwellings, new living habits, will all have a marked effect on the polishes and finishes of the future. We already have heard of homes in which the roof can be slid back to admit sun, air—and moisture. What kind of floor problems will crop up in such homes?

As for consumer demands we have a pretty good idea about what the housewife basically wants in so many things she buys. During the past half century the entire concept of housekeeping has changed. No longer does the title of housewife mean that the "little woman" works in the home from dawn to bedtime.

Janet Wolff, in her book "What Makes Women Buy," says that homemaking is taking on new dimensions for women. "First," she says, "although homemaking is the number one time consumer, the amount of time spent on routine household tasks is diminishing. Not only do women spend less time on homemaking but they show a desire to decrease even further the time taken by housework. This is evident in their selection of ready-to-use and time-saving products and services. In fact they have come to expect these time-saving benefits in everything they purchase—built-in pluses that are essential to their living."

Elizabeth Wiegand, in a survey conducted under the aegis of Cornell University, found that in the 16-year period ending in 1952 the share of women's homemaking time used for care of the house dropped from 33 per cent to 18 per cent, and she attributed this de-

*Paper presented during 46th annual meeting, Chemical Specialties Manufacturers Assn., Washington, D. C., Dec. 8, 1959.

crease to improved products and appliances.

She also found that waxing floors was one of the more irksome chores, in the opinion of housewives, along with washing clothes, dusting and making beds. (Dishwashing, strangely enough, was not listed high among the tiresome tasks by the women interviewed.)

Home furnishings and decoration, adding up to home beauty, are among the housewife's chief interests these days. Seldom does a homemaker say she dislikes decorating, even though she does moan about upkeep.

Women's interest in furniture and decoration reflects a rising taste, which in turn reflects more education, more leisure time to pursue artistic interests. The influence of magazines and other media also is reflected here. The Victorian room, packed with knick-knacks and souvenirs, heavy draperies and rugs, has been swept clean. The modern home is more open, with greater expanses of exposed flooring. William Pahlmann, Paul McCobb, James Amster and other leading interior decorators have espoused the clean, bright look that calls for highly polished floors of imaginative hues and designs.

Nevertheless, it has been estimated that the average housewife still walks 300 miles a year in her

home. Add to this the amount of foot work done by children and the man of the house and you get some idea of the beating that floors take. I think that the objectives of floor polish makers are clear: we want to give the housewife and industry products that are the ultimate in gloss and protective qualities and yet require a minimum of effort to apply. We want to develop products that are reasonable in cost, easy to apply and long lasting.

Perhaps in our consideration of this matter it might be wise to trace the history of wax and floor finishes. Often by examining the past you can get an inkling of the future.

History first records use of wax for polishing floors in the 13th century when Italian floors began to reflect the mosaic influence. Floors made of marble, terrazzo and stone were waxed. It was in the following century, however, when wooden parquet floors were introduced in France that the use of floor wax as we commonly know it became widespread.

It was at this time that France first established her national reputation for beautiful floors. Still in existence today are the wood floors of the palaces of Versailles and Fontainebleau, wax beautified and protected through the ages. Millions of visitors pass through Versailles every year yet the floors are still in superb condition. Other famous French buildings still have smooth, level floors, even though the stone stairs leading to many of them are worn deep from the friction of shoes.

Beeswax was used in the early days, being melted into the floors with hot irons and then polished by serfs skating around on the waxed surface, their feet bound in rags.

The first step in a long chain of developments, still going on today, was the use of turpentine in which the beeswax was dissolved. This was the forerunner of our paste waxes and, subsequently, modern liquid polishing waxes which, basically, are paste waxes

which are further thinned out.

The methods of using polishing waxes have also progressed. The serf or servant skating around the floor gave way to hands-and-knees buffing with rags and brush. Then came the wax bar, predecessor to the electric polisher of today.

The discovery and introduction of new raw materials have been vital in creating products that do a good job and are easy for the ultimate consumer to use. Until the late eighteen hundreds there was little change in the raw material composition of floor waxes. Beeswax continued to hold the spotlight until 1797 when Koster discovered carnauba wax on the leaves of palm trees that grew in eastern Brazil. The wax enabled the trees to hold enough moisture to survive the hot, dry winds that withered other vegetation in that area.

The natives had been harvesting and using the wax for domestic purposes for years but it was not until the latter part of the 19th century that it became an important article of commerce. Wax manufacturers then found that this new wax could be used in a floor wax formulation that would give a much-longer-lasting finish and produce a much higher gloss than was possible by the use of beeswax alone.

With the advent of cheaper petroleum distillates, the use of turpentine as a solvent in the preparation of paste and liquid waxes was practically discontinued. The same transition was taking place in the paint industry. It was at this time, 35 years ago, that I joined S. C. Johnson & Son. It was a propitious time because we were on the threshold of drastic changes in the production of wax products.

Enter Water Emulsion Wax

During the latter part of the Roaring '20s-1929 to be exact—the first water-emulsion self-polishing wax was marketed. The depression was on its way (even though few people knew it) and the introduction of this new prod-



uct was to be a mighty big help to wax companies in surviving the approaching period of economic drought that was to see stock brokers selling apples on street corners.

It was a time when women's emancipation from household drudgery was well under way and they welcomed this work-saving development. There was Rudy Vallee to listen to on the radio; Clara Bow to see at the movies; F. Scott Fitzgerald to read. If any gray-haired gentlemen reading this article have a dim memory of this trio, then I will remind them that this also was the time of Prohibition.

Self-polishing wax had its origin in the leather industry and it was introduced as a floor wax by a leather chemist* in St. Louis.

It consisted of a mixture of two colloidal suspensions, a sodium oleate suspension of carnauba wax in water and a borax suspension of shellac in water. To this day these products are erroneously called emulsion floor waxes. This nomenclature, however, is not as erroneous as it may seem at first glance since in the preparation of these products true emulsions are formed at the higher temperature at which they are prepared and are then reduced to colloidal suspensions by cooling.

The advent of this new type of product caused a stir in the floor wax industry. It was felt that these products were misnamed and that they more closely resembled floor finishes such as varnishes and shellacs than they did floor waxes. In its initial form, the self-polishing wax was a poor product and the consumer was often very disappointed with it. It was felt that this concoction would give a bad name to the floor wax industry. The floor wax industry contended that floor waxes, as known to the public, consisted of suspensions and solutions of pure waxes in completely volatile solvents which, upon evaporation, laid down upon the floor surface a coating of pure

wax. Consequently, it was charged, the public was being deceived when people purchased this product as a wax since, in addition to waxes, this product left on the floor a coating of resins and an emulsifying agent.

At this point it might be well to define this term wax which I have been using so frequently. The classification of wax stems from the basic material beeswax. Therefore, its chemical definition is based on the composition of beeswax; that is, a wax is an ester of long straight chain fatty acids of about 30 carbon atoms in length with monohydroxy alcohols of equal chain length. I like to liberalize and simplify this definition so as to include the hydrocarbon waxes and waxy synthetics by defining a wax as being a material which resembles beeswax either in its chemical constitution or physical properties.

After several years of investigation the Federal Trade Commission decided that the public was not being deceived by these self-polishing type products and that the term "wax" could be used on floor maintenance preparations regardless of the composition of such products. In subsequent years attempts were made by the Federal Trade Commission to have the floor wax manufacturers agree upon the amount of wax that should be included in the composition of a floor wax in order for the name wax to apply properly. No such an agreement was ever made; consequently, today a product may bear the name floor wax though in its composition it contains absolutely no wax. I mention this now so that when the composition of self-polishing floor waxes as they have evolved is discussed you will not be confused. Today the term floor wax merely means a product which is used in the maintenance of floors through the deposition of a solid temporary coating on those floors. The original self-polishing floor wax was rather poor in performance but through the application of scientific methods the de-



J. Vernon Steinle, who takes a look at the future of floor waxes, joined S. C. Johnson in 1925. Previously he had taught chemistry at Marquette University for one year. He received his B.S., M.S. and Ph.D. degrees from University of Wisconsin.

velopment of today's self-polishing floor waxes has progressed to the point where they have become highly accepted consumer products.

The primary problems involved in the correct formulation of solvent type, polishing waxes were the proper formulation of the mixture of waxes and solvents so that after evaporation of the solvent carrier the wax deposited on the floor could be buffed to a high sheen through frictional redistribution of this dull wax deposit. The problems involved in the improvement of emulsion type floor waxes were much greater and involved far greater application of scientific principles to solve them.

Basically, self-polishing floor waxes dry with a sheen because as the water evaporates from the applied film the colloidal suspension changes from its initial hydrosol form to a hydrogel. This hydrogel forming suddenly from the evenly applied liquid film forms a smooth surface which has gloss. The film continues to dry by dehydration of the gel without alteration of the surface characteristics.

As the development of the
(Turn to Page 93)

*George F. Rodawald of Nu-Form Polish Co., St. Louis



Strouse, Inc.

PRESSURE packaging highly volatile liquid engine starting fuels with compressed gas propellants gave Strouse, Inc., Norristown Pa. a flying start in the aerosol field. This difficult and dangerous task was successfully tackled by the firm five years ago under the leadership of A. Frank Strouse, president who came to the aerosol field from the novelty business, in 1954. The compressed gas method is being used by Strouse more extensively than by any other contract filler according to Mr. Strouse who recently granted an exclusive interview to a representative of *Soap and Chemical Specialties*.

The company has grown rapidly and its production has increased 66 per cent in the period from June 1958 to June 1959. Today the starting fuel is filled in a recently completed explosion proof plant at Main and Astor Streets, Norristown. Air fresheners and other aerosol specialty products are packaged at newly modernized facilities at Basin and Cherry Streets, where the firm's offices are located.

In the interview Mr. Strouse revealed plans to purchase a 36-acre tract near Norristown where he intends to build a new one-story factory which will house all operations under one roof. He attributes the rapid rise of the enterprise mainly to its start and know-how in the packaging of ethyl ether.

"The company's superior



Top: No. 1 Strouse plant for contract loading of volatile products.

Aerosol filling line in "explosion proof" plant for loading highly volatile products.

Key Strouse executives, l. to r.: William Hitman, plant No. 2 manager; Carl S. Hedstrom, in charge of government sales and service; John Pontin, general manager; A. Frank Strouse, president; Charles Graber, general superintendent; William E. Bechtel, plant No. 1 manager.

--Fast Growing Aerosol Loader

Having successfully pressure packaged highly volatile engine starting fluids, Strouse tackled conventional aerosols. The step turned out to be profitable one.

facilities and ability to handle the flammable chemical has brought Strouse, Inc., to the attention of several of the largest nationally known corporations contemplating the introduction of ether products," Mr. Strouse reported. Some of the firm's current contracts run for four and five years. One of these calls for over one million cans a year of starting fuel to be pressure packaged under the label of one of the largest automotive supply and accessory companies in the East. New long-term contracts with four of the top companies in the field were obtained recently, Mr. Strouse said. Last year Strouse's starting fuel was passed by the Annapolis testing laboratories of the U. S. Navy. A substantial portion of the firm's output is being exported to Canada, Europe, and South America.

Today the company's filling lines handle oil and water based aerosols and foam type pressure packages. The product line includes lubricants, rust inhibitors, and starting fluids for diesel and gasoline engines as well as insecticides and space deodorants. Various coatings are pressure packaged including acrylic sprays, paints, and special purpose dressings. Strouse also loads silicone sprays of all types, acetone, and hair sprays. Insecticides include the space sprays as well as residual sprays intended for control of moths, roaches, and ants.

Mr. Strouse attributes his success largely to the devotion and

technical skills of his personnel. He added: "We are presently large enough to offer facilities and competitive prices for any size order. But we shall always be small enough to offer personalized service and quality control which help build and maintain the success of any customer's product."

Actually, Mr. Strouse's own dynamic personality is one of the foremost reasons for his firm's success. In the early days of the firm he used to sleep in the plant and even endanger his personal safety by working with highly volatile materials before his loading method was perfected. It has since been made safe and is covered by a patent, details of which are due to be published in the near future. The patent deals with the system, method and gases used for pressure packaging ether and similarly volatile materials. The core of Mr. Strouse's contribution consists of

A Frank Strouse,
President



depressing the flash point of the ether and gas formulations from -40°C to -70°C .

At present Strouse, Inc., operates four complete and modern aerosol production lines having the following output capacities:

1. Automatic fluorinated hydrocarbon filling line capable of handling 50 cans per minute or 2,500 cans an hour;

2. Twin pressure filling lines capable of pressure packaging with compressed gases up to 45 cans per minute;

3. Aerosol bottle filling line having a capacity of 325 bottles an hour;

4. A recently completed fully automated cold filling line for small metered units, both tubes and bottles, capable of loading up to 10,000 units a day.

5. Oxygen filling line, having an hourly capacity of 300 55-cubic inch emergency cylinders.

Strouse's facilities also include a propellant bulk storage system, up to date mixing plant and materials handling and storage equipment. The firm has a research, product development and quality control laboratory and a complete silk screen printing set up.

Mr. Strouse told *Soap and Chemical Specialties* that he learned the aerosol business by intensive theoretical studies, by visiting other aerosol plants and by excellent cooperation from his suppliers. Mr. Strouse enjoyed the cooperation of his suppliers also in the form of \$100,000 worth of credit granted him when funds were needed for expansion.

Strouse, Inc. was incorporated Aug. 5, 1954 under Pennsylvania laws to acquire the business of the partnership of A. F. Strouse & Son. This partnership
(Turn to Page 97)

Insect Attractants

New insect lures, natural or synthetic, may supply answer to insect detection. Combined with toxicants they may offer chance of eradication of certain species

By Morton Beroza*

Entomology Research Division
U. S. Department of Agriculture
Beltsville, Md.

INSECTS live under an extremely wide variety of environments. They manage to thrive because they have developed various adaptations or abilities, one of these being sense of smell. Many insects rely heavily on this faculty; they follow an odor trail to a source of food, to host plants and animals, to a mate, or to the right place to lay eggs. Sometimes the odor or scent can evoke so compelling a response that the insect appears to have little choice but to seek out the source.

Scientists of this division are looking for chemicals that emit such attracting vapors because they can be used to combat insects of economic importance (8). These chemicals are usually highly specific, that is, they will attract one or a few closely related species, and then only the males. This paper will be limited to a discussion of these specific-type lures.

In actual practice traps are baited with the lure; wherever insects are caught and as long as they are caught, control measures may be applied. This makes for an extremely efficient and consequently relatively inexpensive operation. Money is saved because insecticides are not wasted. Residue problems are cut to a minimum.

If eradication is the goal, then a good lure can help locate those last few hard-to-find insects. The Florida campaign against the Mediterranean fruit fly in 1956 — 1957 proved this (12). A synthetic insect lure (5,6) played an important role in bringing this program to a rapid and successful conclusion.

Search for Lures

Now, how are lures found? I don't mean the occasional accidental-type discovery. How do we deliberately set out to find a lure for a given species?

There are two main routes.

In one of these, which we shall call the *isolation* approach, we start with a natural substance known to be an attractant and attempt to isolate, identify and possibly synthesize the active ingredient. The natural attractant may be derived from a host plant or animal. It may be generated by the insect itself; e.g., the sex lure emitted by the female gypsy moth, *Porthetria dispar* (L.), that attracts the male to her for mating purposes.

We have used the gypsy moth attractant to define the areas infested by the moth. With the aid of this knowledge and the application of appropriate control measures, the further spread of this serious pest has been prevented

(13). But getting the lure is costly and frequently the insects needed to prepare the lure are in such short supply that we are forced to make collections in foreign countries. To overcome these difficulties one of our chemists, Martin Jacobson, is currently trying to isolate, identify and then possibly synthesize the lure. Success here may pave the way toward the eventual eradication of the moth. However we are under no illusions as to the difficulty of this problem. Until very recently the chemical

(Continued on Page 76)

Lack of space prevented publication in the January issue of photos on facing page, which were taken during 45th annual CSMA meeting in Washington, D. C. in December.

Top row, left to right: William A. Smith, House of J. Hayden Twiss; H. W. Hamilton, CSMA; Robert J. Hamilton, General Aniline & Film Corp.; Prescott Fuller, Fuller, Miele, Inc.; Don Hoover, Vulcan Steel Container Co.; Robert R. Ernst, Bennett Industries, Inc.; David W. Lynch, Vulcan Steel Container Co.; Daniel J. Donnelly, Fairfield Chemical Division, FMC; Milton Fowks, Powr-Pak, Inc.

Second row: Walter Mannheimer, Miranol Chemical Co.; Louis Brunner, Brulin & Co.; Julius Neuberger, Brulin & Co.; Harry Peterson, Peterson Filling & Packaging Co.; E. J. McKernan, E. J. McKernan Co.; A. H. Lawrence, Jr., Freon Products Division, E. I. du Pont de Nemours & Co.; Robert F. Murphy, Fries & Fries, Inc.; Charles R. Pantaleoni, Alpine Aromatics, Inc.; Asa A. Eldredge, Hilex Co.

Third row: James E. Ferris, Hooker Chemical Corp.; H. J. Brownstein, Hysan Products Co.; E. G. Klarmann, Lehn & Fink Products Corp.; Milton J. Foter, U. S. Department of Health, Education, and Welfare; Oscar F. Hedenburg and H. W. Moburg, Rex Research Corp.; G. E. Doerr, Federal Varnish Division.

Fourth row: George Fuller and Lyle Christensen, Warwick Wax Division, Western Petrochemical Corp.; John W. Barnes, Bradshaw-Praeger & Co.; Paul E. Wenaas, Simonix Co.; Henry Blanchford, Mantrose Corp.; Thomas B. Smith, Simonix Co.; John W. Hall, Jr., Mantrose Corp.; John D. Marks, H. B. Meyer & Son, Inc.; Carl Betz, Betco Corp.; Irwin Y. Straus, Dura Commodities Corp.

Fifth row: Jack Leech, Monsanto Chemical Co.; Nick G. Contos, T. F. Washburn Co.; Paul J. Ketrick, Ultra Chemical Works, Inc.; Edwin I. Stoltz, Adell Chemical Co.; James Russo, Aerosol Techniques, Inc.; Gordon C. Gilroy, Precision Valve Corp.; Gordon S. Lang, Connecticut Chemicals (Canada) Ltd.

*Paper presented at the 46th annual meeting, Chemical Specialties Manufacturers Ass'n., Washington, D. C., Dec. 9, 1959.



structure of the lure of silkworm moths was elucidated in 1959 by Butenandt and his coworkers (2).

Obviously the isolation approach can be a long, hard, and often unrewarding search.

Is there an easier way to find lures?

We think so. It can be called the *volume screening* approach — we screen a large number of compounds to get a lead, i.e., a weak attractant; we then obtain or synthesize related compounds in an attempt to get a better lure.

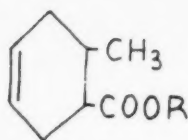
This procedure is not new. It is the same as that used to find new insecticides, herbicides, pharmaceuticals and a host of other physiologically active agents. However, this approach has not, to my knowledge been previously applied to the finding of insect lures with a supporting synthesis program. To date we have run more than 15,000 lure tests against about 15 insect species and the results have been gratifying. We have turned up potent and useful lures for a number of economically important insect pests.

The demonstration of the effectiveness of this approach can be considered a new and worthy development.

Screening and Testing

Now which chemicals do we test? Of course those chemicals reported to be lures are tested first. We try shelf chemicals, compounds synthesized in the past, for whatever purpose, intermediate chemicals in fact, chemicals from any source. We tap other government agencies, universities, industrial organizations, perfume houses, etc. The greater the volume and the variety of chemicals subjected to test, the better are our chances of finding a good lure.

Once a chemical lure is found, the performance of related compounds is systematically investigated. Here the ingenuity of the chemist comes into play, especially in conjuring up compounds to be synthesized and in devising methods to prepare them.



R	OLFACTOMETER RATING
CH ₃	48
CH ₂ CH ₃	122
CH ₂ CH ₂ CH ₃	96
CH(CH ₃) ₂	100
CH ₂ CH ₂ CH ₂ CH ₃	71
CH ₂ CH(CH ₃) ₂	99
C(CH ₃) ₃	8
CH(CH ₃)CH ₂ CH ₃	87
CH(C ₂ H ₅)CH ₂ CH ₃	83
CH ₂ CH=CH ₂	107
CH ₂ C≡CH	83
CH ₂ CH ₂ Cl	86
CH ₂ CH ₂ OCH ₃	0
CH ₂	0

Table 1. Olfactometer ratings of Siglure analogs.

The chemical proved best in the screening procedure is not necessarily the most potent in field trials. We expect the screening procedure to eliminate unattractive materials, but the important thing is that it should not miss a good lure. Table I shows some analogs of Siglure (6), the attractant used in the Florida Medfly campaign. (To facilitate comparison, the isopropyl ester has been arbitrarily assigned the value of 100) While the attractancy ratings of these closely-related compounds are quite different, it is interesting to note that almost all of them do attract. Consequently our present feeling is that lures are easier to find than insecticides because they have less rigid structural requirements.

The compound performing best in the olfactometer were test-

ed in the field; Table II gives the results (6). It is apparent that agreement between olfactometer and field results is not good.

Results indicate that the final evaluation of a lure must be made in the field, preferably under actual conditions of use. Such conditions are by no means standardized. The entomologist must devise the mode of use and consequently must determine the effect of many variables, such as temperature, duration of effectiveness, trap design, altitude, humidity, and so on.

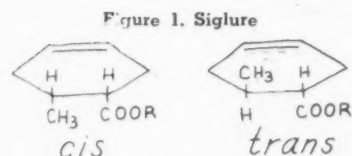
There are other points to consider. Feasibility and cost of commercial production can be a deciding factor.

Chemical Structure

Figure 1 shows Siglure which occurs in two forms—*cis* and *trans*. L. F. Steiner of USDA's Honolulu fruit fly laboratory reported that the *trans* form caught about two and one half times as many flies as the *cis* form (14). Because this

Table II. Field and olfactometer ratings for Siglure analogs

Ester	Field	Olfact.
sec-Butyl	279	87
1-Ethylpropyl	231	83
Isopropyl	100	100
Butyl	98	71
Allyl	53	107
Isobutyl	48	99
Coclopentyl	47	79
2-Propynyl	40	83
Ethyl	38	122
2-Chloroethyl	29	86



(Turn to Page 101)



Penick has the right
odor mask for your product

If you need to repress an odor or wish to impart a new one, Penick can offer constructive recommendations in keeping with your product and processing requirements.

Our comprehensive library of inexpensive deodorants, reodorants and industrial masking agents includes custom designed compounds now being used in plastics, insecticides, textiles, soaps, detergents and many other industries. Our experienced perfume chemists are available for consultation without obligation.

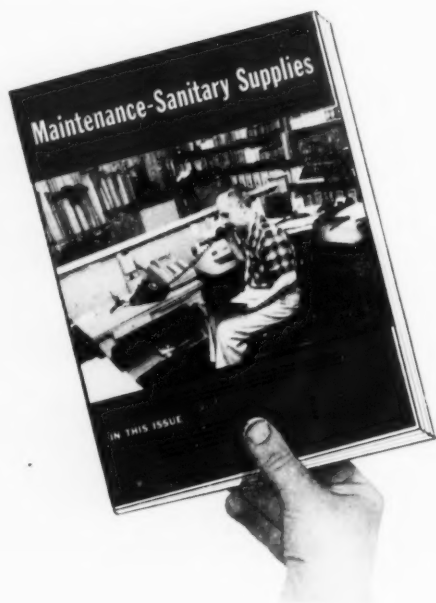
We invite you to make full use of our facilities. An inquiry will bring prompt response.

PENICK

*Perfumes, Flavors and
Aromatics Department*

S. B. PENICK & COMPANY
100 CHURCH ST., NEW YORK 8
733 W. DIVISION ST., CHICAGO 10

Annual Convention



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Copy dead-line for advertising is *April 10!* No time extensions this year.

If you want further information, wire us collect today.

The special annual Convention and Trade Show issue of MAINTENANCE-SANITARY SUPPLIES will be the May issue this year. Here is the opportunity to blanket sanitary supply and equipment distributors with your advertising in advance of the Trade Show . . .

In this annual convention issue of MSS, your advertising will be read by over 6,300 distributors of sanitary supplies and equipment,—janitor supply jobbers, paper jobbers, school supply jobbers, hotel, restaurant, club and bar supply jobbers, hardware distributors, and others jobbing sanitary supplies, who sell *over a billion dollars* worth of sanitary supplies and equipment annually . . .

Plus a copy of this issue of MSS distributed to everybody who attends the annual Trade Show of the National Sanitary Supply Association in Miami, Florida, May 22-25, 1950.

**Over 6,300 distributors of
maintenance supplies and equipment
will read and keep this issue!**

MAINTENANCE-SANITARY SUPPLIES

Member **BPA**

Issue . . .

MAINTENANCE-SANITARY SUPPLIES

MAY 1960

for distribution at the
NSSA's Miami Trade Show

. . . copy closing April 10!

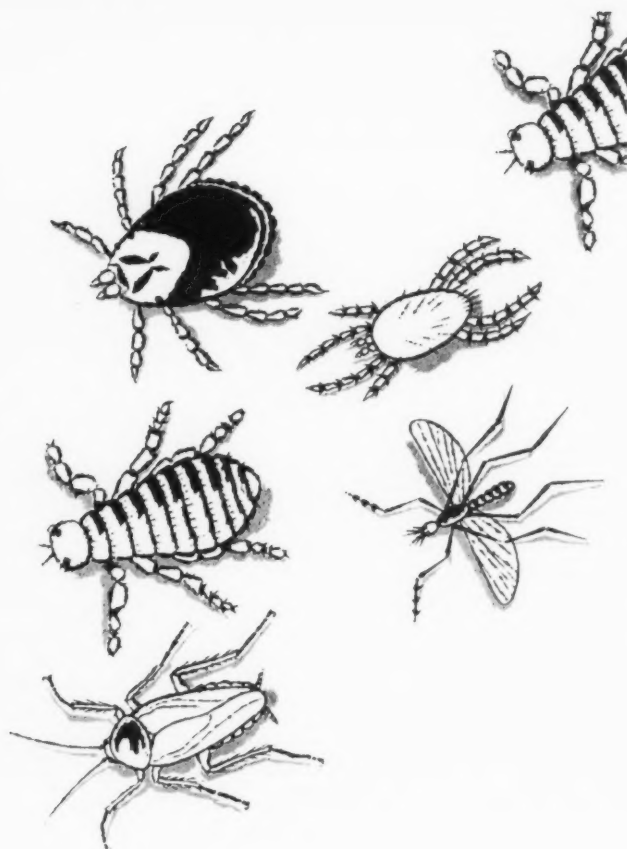
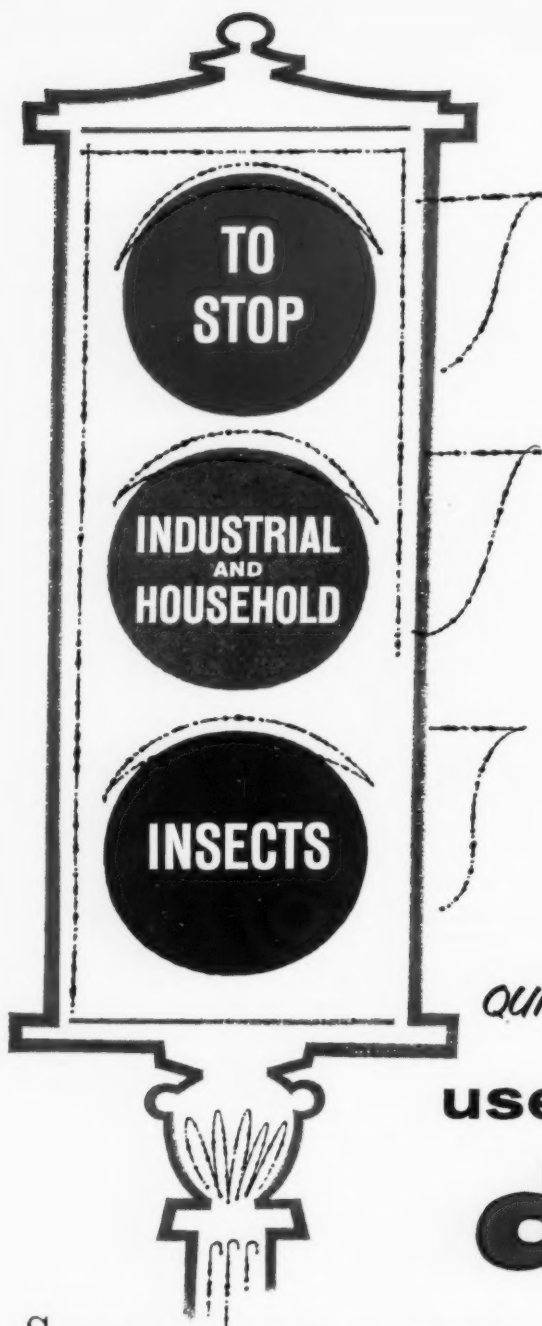
If you want your advertising
to be read by over 6,300
distributors plus everybody
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tion and trade show . . .

. . . don't miss this special issue!

Early indications now guar-
antee this will be the biggest
jobber show in NSSA history.

. . . . published by MAC NAIR-DORLAND COMPANY

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QUICKLY... EFFECTIVELY... ECONOMICALLY

use and recommend
dieldrin

SUCCESSFUL CONTROL of insects in industrial plants and homes must be quick, effective and economical. That's why the big swing is to dieldrin. Thousands of pest-control officials rely on dieldrin for sure kill. And dieldrin is effective at extremely low dosage treatments . . . a little goes a powerful long way.

Dieldrin's powerful effectiveness is proved time and time again in controlling cockroaches, mosquitoes, ticks, chiggers, fleas, ants and many other health-endangering and annoying insects. Once they contact this potent insecticide, they're finished. And dieldrin is just as effective outdoors, as well.

Economical and easy to apply, dieldrin is available for use as granules, dusts or as a spray with conventional pressure equipment. Important, too, dieldrin is long lasting. It kills harmful insect pests long after application.

Complete technical information about dieldrin is available. Write to:

SHELL CHEMICAL COMPANY

AGRICULTURAL CHEMICALS DIVISION
 460 Park Avenue, New York 22, New York





Cleaning compounds represent a large proportion of the 28 billion packages of chemical specialties marketed each year. Major share of household chemical specialties are sold through grocery supermarkets as shown above.

Photo courtesy E. I. du Pont de Nemours & Co.

Marketing Chemical Specialties

CHEMICAL specialties are being produced and sold at the rate of 28 billion packages a year, representing a sizable part of the national economy. This volume includes of course both the retail (consumer) and the wholesale industrial markets. While this paper is chiefly concerned with the marketing of household chemical specialties, the ideas presented here are equally applicable to the industrial marketing of such products.

The field of marketing can be divided into three essential functions:

1) Advertising

*Paper presented at 46th annual meeting, Chemical Specialties Manufacturers Association, Washington, D. C., Dec. 8 1959.

By Edwin I. Stoltz*

Adell Chemical Co.
Holyoke, Mass.

- 2) Selling
- 3) Distribution

We will not cover the distribution phase here. We will attempt to cover the advertising and selling aspects of marketing and make you aware of theories and policies which we practice each and every day. These policies reflect the thought that business is more than supplying goods for dollars. Some of these theories and policies may be agreeable to you while others may not be so. However, they are all food for thought and consideration, especially since

they have been tested and found to be sound marketing procedure for at least our company.

First, let us take a look at advertising. The Adell Chemical Company has been in existence since 1933 when "Lestoil" was first introduced. At that time synthetic detergents were completely unknown and soap products were the accepted cleansing agents. The growth of our company was slow for many years, with the marketing of "Lestoil" directed to commercial laundries, paper and textile industries for use in their manufacturing processes and also for general maintenance purposes.

We had little knowledge of retail merchandising and no money

to buy advertising of any consequence. But with a firm belief in the excellence of our product for retail use, we did try many means of advertising, i.e., sampling, newspaper, radio, etc. Our attempts were feeble and produced negligible results. For many years, we spent as much as \$3.00 in retail merchandising and advertising for every \$1.00 in sales. This is hardly a profitable way of doing business. Results were so discouraging, we were ready to give up retail sales to concentrate on our industrial business which was sustaining our costly excursions into the retail field.

Emergence of Television

By 1954, however, television was beginning to emerge as an important factor in the advertising field. The idea of trying out television appealed to us. We knew that we had a product that was needed by the general public, if only we could create public awareness of it. This was the main reason—a belief in the excellence of our product—that made us persist in our attempts to reach the consumer. In that year, 1954, we decided to make one last attempt in advertising "Lestoil" to the consuming public—through the new medium of television. We had learned expensively that we were spreading our advertising money too thinly over a relatively large area. We began advertising with a budget of \$10,000 over one television station only—WHYN-TV, in Holyoke, Mass.

Later that year we bought time on three more TV stations in Springfield, Hartford and New Haven. The first year of television advertising on these four stations brought enough results to indicate its value.

Our case history in the field of television advertising was interesting enough to the television industry for the Television Bureau of Advertising to ask our permission to make a film which we understand is being widely shown to advertisers and advertising agen-

cies to prove the value of spot TV advertising.

Since the greatest portion of our advertising budget is allocated to television, most of my comments will be directed to this medium. All of our commercials are made within the following framework based on our firm advertising policies:

1) *All commercials or other advertisements must be factual.* Under no circumstances will our films make exaggerated claims or statements which our products cannot live up to. Therefore, each use of our products has been thoroughly tested and found to be efficient and safe for the advertised use. A quick way to lose a steady customer is to advertise uses in which your product does not work well. We have found that in a great many instances the customer, after finding that a product works for a particular job, will start experimenting and come up with his own uses for the product.

2) *At no time should any comparisons be made with another product or products.* This advertising policy truly reflects the thinking of management. An ethical approach to both advertising and selling is strictly adhered to by all of our associates. We believe that we have a product to sell and that expensive television time should not be wasted on comparisons with competitive products.

The author, Dr. Stoltz, is technical director of Adell Chemical Co., makers of "Lestoil" all-purpose cleaner.



Photos on facing page, taken during recent CSMA meeting in Washington, D. C., were scheduled for publication in January issue. Because convention report in that issue ran extra long it was necessary to hold convention pictures for this issue.

Top row, left to right: J. R. Bardusch, R. W. King, C. B. Miller, W. B. Sherry, F. C. Hitchings, all General Chemical Division, Allied Chemical Corp.; T. M. Bennet, Jr., E. C. Richardson, W. E. Johnson, G. H. Stanton, all U. S. Industrial Chemicals Co.

Second row: Art Chavis, Union Carbide Chemicals Co.; J. A. Smith, Armstrong Cork Co.; Jack Kuster, Raymond A. Moran, Colgate-Palmolive Co.; R. H. Shinn, Crown Cork & Seal Co.; William T. Egan, Colgate-Palmolive Co.; Jack Schlossman, Aerosol Research Co.; Herman Locke, Reefer-Galler, Inc.; Fred R. Gardner, Powr-Pak, Inc.; Edward R. Yuhas, Precision Valve Corp.; Ernest S. Jaros, Reefer-Galler, Inc.

Third row: Carlyle D. Muir, Fairfield Chemical Division, FMC; Paul D. Torpin, Joseph E. Lee, McLaughlin Gormley King Co.; Oscar F. Hedenburg, Rex Research Corp.; Perry G. Bartlett, West Chemical Products, Inc.; Dave Eagleson, Emery Industries, Inc.; Irving Gaines, Onyx Oil & Chemical Co.; Claude J. D'Angio, Airkem, Inc.

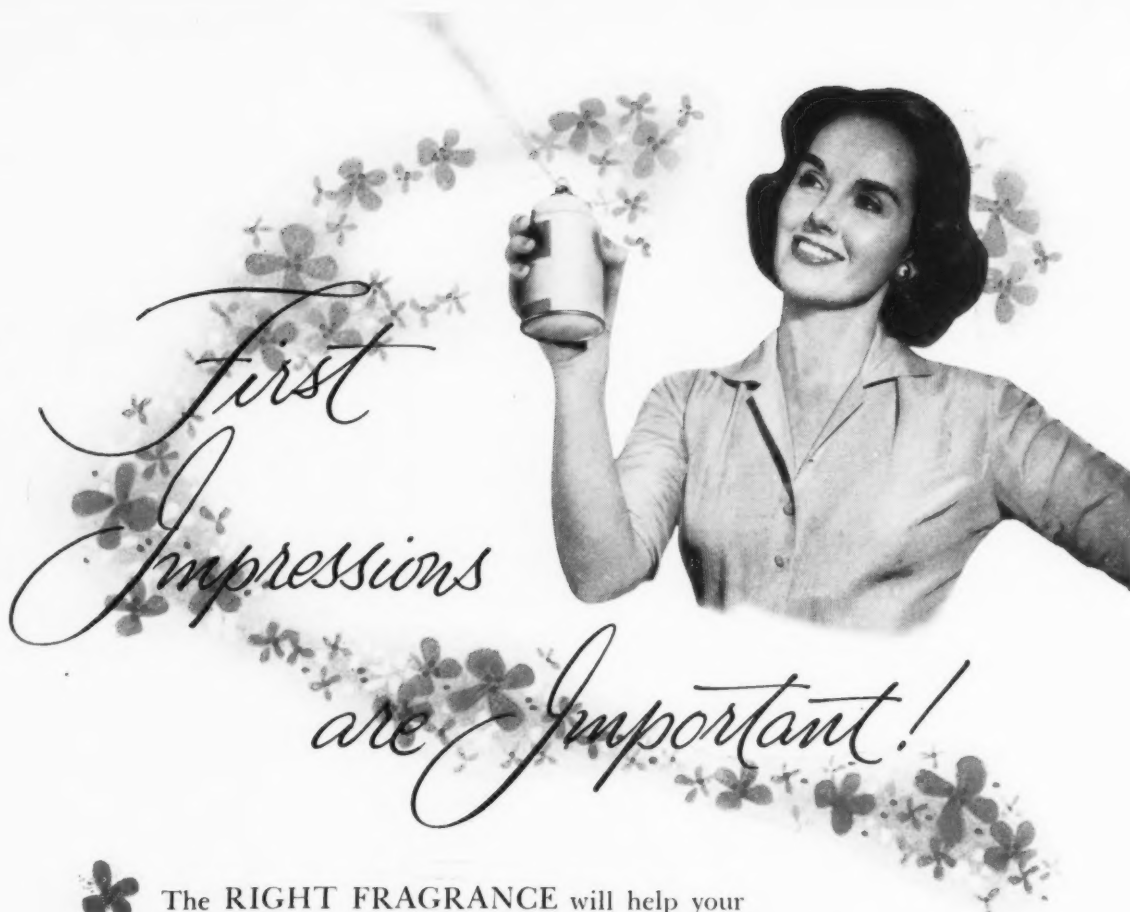
Fourth row: Paul D. Torpin, McLaughlin Gormley King Co.; W. H. Foster, M. G. Farleman, Standard Oil Co. (Ohio); Tom Bogaard, McLaughlin Gormley King Co.; W. O. Tritschler, Standard Oil Co. (Ohio); Marvin A. Bienvenu, Aerosol Corp. of the South; Fred R. Geib, Dow Chemical Co.; A. A. Mulliken, CSMA; Emil G. Klarmann, Lehn & Fink Products Corp.

Fifth row: A. G. Bowers, Pioneer Manufacturing Co.; M. G. Farleman, W. H. Foster, Standard Oil Co. (Ohio); Robert Muirhead, McLaughlin Gormley King Co.; Lewis H. Allyn, Perry Brothers, Inc.; Edwin I. Stoltz, Adell Chemical Co.; A. E. Griffin, Hercules Powder Co.; Ben Perry, Perry Brothers, Inc.

Such comparisons are deplored by the viewer, we believe. He may even be antagonized because he feels his intellect is being belittled.

The comparison with competitive products is commonly used at the present time. You probably have seen the battle being waged between the aspirin and the buffered headache compounds. After watching these commercials, a headache medication is needed—but which one? Or when the company advertises that its liquid cleaner is better than any other liquid or powder ever made—I wonder what the viewing public





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thinks . . . for the public is very well aware that this particular company manufactures many other liquid and powder cleaners. To our minds, this all adds up to negative selling.

3) *All statements must be of a positive nature.* Knowing that the advertised uses are efficiently fulfilled by your product, there is no reason not to be positive about your claims and put hard sell into the commercial. Just like a good salesman, we get into the commercial, tell our story, and quickly get out. There is a growing tendency for television commercials to show a supposedly comic situation for 20 to 30 seconds, which has little or no relation to the product being advertised. Here again, valuable time is being wasted so that the viewer is not attracted to the heart of the commercial and the message is completely lost.

4) *Since we are entering our prospective customer's living room, the approach must be a soft one that will not antagonize the listener.* We feel that the demonstration type of commercial helps to keep the viewer's antagonism down to a low level. It offers the added advantage of actually showing the viewing prospective customer how a product is used which is far better than merely describing it. The demonstration commercial is actually educational while selling the product on a soft, subtle note.

While we have always believed that television commercials should not be made to entertain but to sell a product, those of you who have seen our famous "Mr. Dirt" and the "Duck and the Painter" films, know that these animated commercials are certainly entertaining in addition to being highly informative.

As mentioned previously, we started television advertising in 1954 with a budget of \$10,000.00 . . . and, five years later, our budget devoted to this medium, was roughly \$12,000,000.00. During these five years we have gained a

wealth of knowledge that may be of interest to you and helpful in your particular cases.

Adell's Theory

Advertising agencies and advertisers used to feel that unless they purchased prime time that carried the highest ratings, they were not getting full value for their money. Our type of purchasing ignored this concept. Our theory was, and still is, that it is preferable to reach smaller audiences with many impressions. We could then inject the message of "Lestoil" into the viewer's mind. Even though he might not remember the exact message, the viewer would reach instinctively for the bottle of "Lestoil" on the store shelves.

The rapid expansion of "Lestoil" in every market we entered apparently proved to advertisers and advertising agencies that possibly they were neglecting a low cost and very effective medium. We believe this was a shot in the arm to the television industry, and enabled them to sell spots in those time periods that heretofore went begging. Now these times are begging no longer, but have become extremely valuable. Our policy still continues as indicated—to purchase spots on a saturation basis for a firm 52-week period. We purchase every station in every market in which we enter. My company never buys prime time. All of our purchases are in low-cost hours . . . late evening or during the daytime. In order not to tire our viewers, we are continually making new filmed commercials. Because of the great many we now have (something like 54), it is not likely that the same commercial will be seen too often by even the most consistent television viewer. The commercials are now being scheduled by IBM equipment so that there is a steady stream of varied commercials each month.

As I mentioned previously, we have been selling chemical specialty products for twenty-six years.

As in advertising, management has, through the years, formulated selling policies and theories which have become standard operating procedure with our organization.

Our philosophy of business is not unique and it is probably the same philosophy that you practice. We have, since the early days of "Lestoil" pursued a policy that allows each participant in the selling of our products a good profit. The profit angle is the heart of selling chemical specialties to the supermarket chain stores and distributors who are your immediate customers.

Let us take liquid detergents as an example. On nationally advertised liquid detergents chain stores make an average profit of 12 to 14 per cent. The profit on "Lestoil" is 28 per cent for the same chain store operation. The historically low profits to be made on detergents and soaps has started a new trend. Each chain, each distributor and even the small "Momma & Poppa" stores now have their own contract packaged detergent under their own names. Private label detergents have increased retailers' profits and though the ultimate consumer will more often than not pick up the advertised package . . . this trend cannot help but affect sales of well-advertised products to some degree.

Guiding Sales Policies

1) *Our salesmen are cautioned against making comparisons with other competitive products.* Since the prime objective is to sell our products, a positive sales approach is made by the men in the field. Likewise, we do not resort to point-of-purchase posters, the so-called laboratory report, or the sales bulletin from the head office "knocking" a competitive product.

2) *No high pressure selling to load a quantity of merchandise on a customer.* The theory that a store with a large inventory will display and merchandise the product in order to move it quickly,

(Turn to Page 103)



Click's para deodorizer with hanging wire for toilet bowl, diaper pail or garbage can (top, left) is now packaged in stackable, protective package of high visibility. Two-ounce block, left, retails for 10 cents; four ounce "jumbo" unit is a 19 cent retailer.

Die-cut openings in faces of packages in lower photo add sales appeal. Four, 1 3/4 ounce circular blocks of para for deodorizing diaper pails are packed in unit at left which can be used for counter display or hanging on rack. Package at right, featuring green pine tree die-cuts, doubles as dispenser unit for "Cedar Pine" para-closet deodorizer blocks.

Click, which prides itself on advanced packaging ideas, in re-packaging its para deodorizer that can be hung in toilet bowls, etc. has come up with a real departure from the conventional packaging of these products. Discarding the cello bag that has been widely used for the past several years, Click has adopted a cardboard box, which is wrapped in clear foil printed in red, yellow, black and white. The new package for the two-ounce and "jumbo" four-ounce sizes of para toilet bowl deodorizer is designed to overcome breakage associated with packaging in unsupported envelopes. With the new package, the product can be seen easily through the clear plastic film top, across which are printed two, separated, narrow reverse bands, one in black, the other red. In addition to protecting the block, the package is stackable, since it is rigid on five sides. Printed on two sides are drawings showing typical applications of the product. The "jumbo" size para toilet bowl block retails for 19 cents. The two-ounce block, retailing for 10 cents, comes in a smaller package. It differs from that for the four-ounce block in that the yellow top and bottom and "V" carrying the Click trade mark on the face of the larger package are blue on the two-ounce block package. A feature of the hanging wire is that it is rust-proof, according to the maker. The designing and printing of this package was done by Bagphane Corp., Flushing, N. Y. Both toilet bowl deodorants are available for

Packaging is Key to Para Profits for Click Chemical

WHEN the highly competitive moth products market hits its stride in a variety of retail stores throughout the U. S. within the next few weeks, new packages will be seen aplenty. Thus, as one "packer" puts it, while the total market for moth products is expanding, "we are having more competition from better packages." To meet and beat this competition, Click Chemical Corp., 601 S. Columbus Ave., Mount Vernon, N. Y., put in a busy fall redesigning the packages for its full line of paradichlorobenzene and naphthalene products.

Click, headed by Millard ("Bob") Fisher, ex-Barrett salesman, who acquired the Mount Vernon firm about 10 years ago, just unveiled its 1960 line. In addition to redesigning the packaging for its moth balls and moth flakes sold through both food and non-food retail outlets, Click has developed a novel package for its "Cedar Pine" para deodorizer for closets. Also restyled is the packaging for Click's two hanger style deodorizers for toilet bowls, diaper pails and garbage cans. Para discs for deodorizing diaper pails have been repackaged in a new unit for rack jobbers.



These four granulations of Solvay® Para-dichlorobenzene are shown actual size.

SEE SOLVAY FOR PARA-DICHLOROBENZENE *with a Plus!*

+ QUALITY! Purity, color and appearance is unsurpassed. **+ UNIFORMITY!** Size varies to a minimum throughout each granulation. **+ PROVEN PERFORMANCE!** The choice of repackers, compounders and blockmakers alike. **+ FREE-FLOWING!** Such smooth-pouring crystals.

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Caustic Potash • Potassium Carbonate • Sodium Bicarbonate • Soda Ash
Ammonium Chloride • Methyl Chloride • Ammonium Bicarbonate • Vinyl Chloride
Methylene Chloride • Cleaning Compounds • Hydrogen Peroxide • Aluminum
Chloride • Mutual® Chromium Chemicals • Snowflake® Crystals • Monochloro-
benzene • Ortho-dichlorobenzene • Para-dichlorobenzene • Carbon Tetrachloride



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DM-20A

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Polishes made with

Epolene E

enhance the beauty of the surfaces they cover

Water-white
Non-yellowing

Take a floor...of wood or resilient material...apply a polish formulated with Epolene E and see how the floor's beauty and color come to life.

The explanation lies in Epolene's ability to produce low-color films of wax of brilliant clarity. What's more, Epolene wax films stay that way—neither darkening nor turning yellow.

But Epolene means more than beauty. It's practical as well. Properly formulated polishes containing Epolene provide a gloss that actually increases with wear and rebuffing. Add durability plus resistance to water spotting, low dirt-pickup and skid resistance, and it's easy to see why more and more leading formulators are basing their polishes on Epolene E.

Epolene E is an emulsifiable, low-molecular weight polyethylene wax. It is carefully manufactured under a precise system of quality control to assure a consistently superior product. As a result, polish manufacturers can standardize formulations with assurance of batch-to-batch uniformity.

Epolene is also available with the same high quality characteristics in a non-emulsifiable form—Epolene N—for use in paste polishes.

The facilities and staff of Eastman's technical service laboratory are available to manufacturers interested in Epolene's particular advantages in polish formulations. For more information and samples, write EASTMAN CHEMICAL PRODUCTS, INC., subsidiary of Eastman Kodak Company, KINGSFORD, TENNESSEE.



Epolene

EASTMAN POLYETHYLENE WAXES

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; Atlanta; Chicago; Cincinnati; Cleveland; Detroit; Framingham, Mass.; Greensboro, N. C.; Houston; New York City; St. Louis. **West Coast:** Wilson Meyer Co., San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

sale by sanitary supply jobbers and also can be had under the marketer's own label.

The para block market, which has had its ups and downs price and profitwise over the past 25 or 30 years is experiencing something of a resurgence through upgrading of packaging. As a result of this increasing attention to para specialties, the market is showing healthy gains, according to Millard Fisher, Click president.

Click, which pioneered in air-tight packaging of moth products for sales through food stores, has revised the label design for its moth flakes and moth balls packages sold by chain grocery stores. Packages for the naphthalene flakes and moth balls are chip board boxes wrapped in cellophane and overwrapped with foil. The foil wrap for the moth balls is printed in green and black, the moth flakes' outer foil wrap is gold.

Similarly, packages for both products sold through other than food stores have been redesigned for 1960. Since food contamination is not a problem, these new packages are unwrapped chip board, printed in red for the moth balls and aqua for the moth flakes. The design of the packages differs markedly from that for the food store packages.

The front of the package holding four, 1¼ ounce cakes of perfumed para for deodorizing diaper pails, bathrooms, etc. fea-

tures a die-cut diamond opening. The blocks, wrapped in blue cellophane, are visible through the opening. A riser at the back of the package holding the blocks explains the function of the product ("Chases diaper pail odors away!"). A hole in the riser makes the package suitable for sale by rack jobbers. The package for this 49 cent retailer was designed by Philip H. Dickstein of New York. American Folding Box Co., Brooklyn, produced the pink and blue package.

Another Click packaging innovation, which was reportedly "bought on sight" by one of the major food chains, carries four blocks of Click's "Cedar Pine" para closet deodorizers. Printed in two colors, brown and black, the overall background effect is that of knotty pine. Pine cones and pine needles printed on this package, designed by Philip H. Dickstein, emphasize the "pine" in the product name. Adding realism and novelty to the package are four die-cut pyramid shaped openings on the front of the package. The green cellophane in which the blocks are wrapped shows through the package as pine trees. North American Folding Box Co., Brooklyn, supplied the box, which holds four, three-ounce perfumed para blocks. A riser at the top of the package repeats the trade name of the product and its use. A hole in the riser makes the package suitable for

handling by rack distributors. The package, which has angled, die-cut openings along the sides and openings in the lower side, can also serve as a holder for hanging in the closet.

Click has enjoyed a 25 fold growth in sales volume in the last 12 years. Click occupies two buildings, providing 17,000 square feet of floor space, at 601 S. Columbus Ave., Mount Vernon in Westchester County, just north of the New York City limits. In addition, Click has just established a new subsidiary in Atlanta, Ga. Click moved to its present location, which includes a new building, six years ago. The firm had been at its previous location for about seven years. The firm employs an average of approximately 40 people during its busy season in the early part of the year.

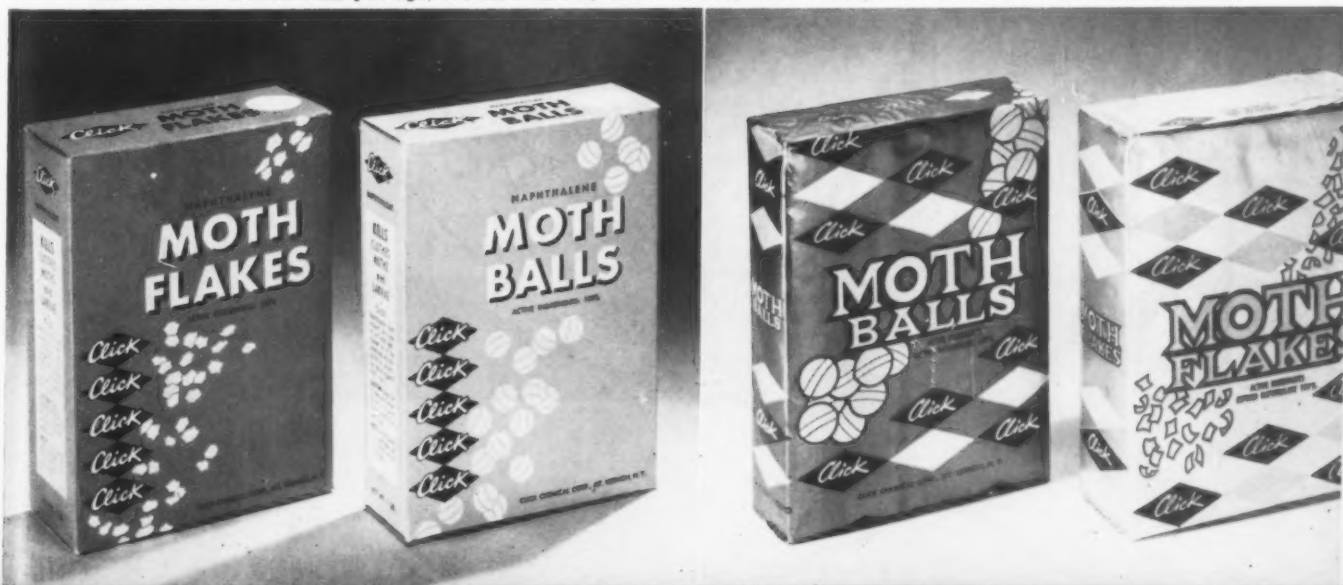
Click's products are sold nationally through manufacturers representatives and food brokers. Retail sales are mainly through syndicate stores and supermarket chains.

Improved packaging has been a major factor in the sales growth of Click, according to Mr. Fisher. He points out that Click has been ahead of its competitors in air tight packaging of para and naphtha products, and is constantly trying to maintain its lead. In this effort Click augments its own

(Turn to Page 195)

Restyled packages, below, have been added to para moth control products line of Click Chemical Co. Aqua chip board package at extreme left is for moth flakes sold through non-food stores. Pink moth balls package, second from left, is for

sales through similar outlets. Foil wrapped packages for moth balls and moth flakes, in right photo, are for sale in food stores. Foil wrap for moth balls is green, black and white, to distinguish it from yellow, black, white moth flakes package.



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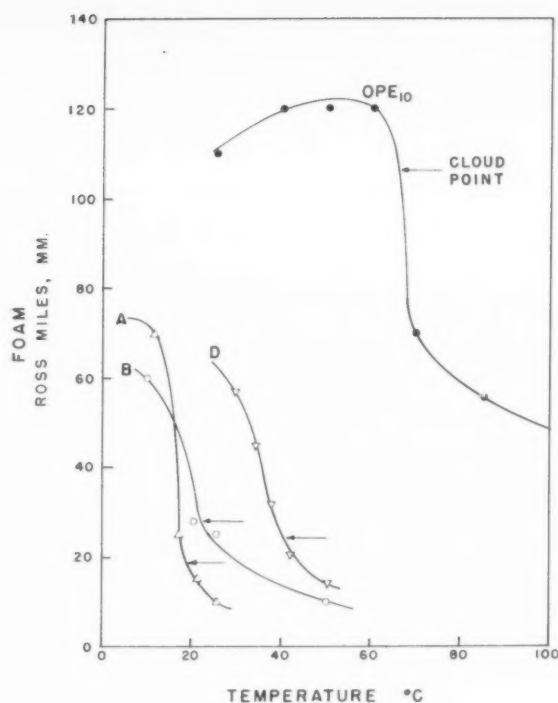


Figure 4. Foam versus temperature.

Low Foam Nonionics

(From Page 58)

Among the many attributes a suitable surfactant must possess, of paramount importance is low foam. Excessive foam could cause overflow of the machine, and moderate amount of foam will interfere with proper rinsing. However, even lesser amounts of foam are objectionable because the inclusion of air in the wash spray will reduce its impact on the load items thereby reducing its soil removing ability. For home use, low foam around 50°C. is necessary while in industrial machines where hotter water is used, low foam in the neighborhood of 70°C. is required.

For measuring this type of dynamic foam a "Hamilton Beach" milk shake mixer and a specially constructed baffled container have proven useful. Typical values from this test are shown in the second column of Table III. Correlation with field use has demonstrated that less than 5-6 cm. of foam in this test is satisfactory. Surfactant B, C and D are adequately low foamers for automatic dishwashers.

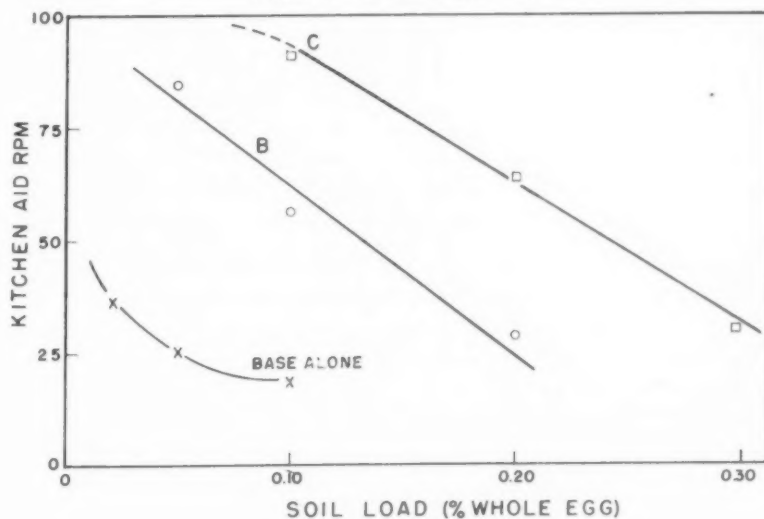
An important secondary consideration is the ability of a surfactant to defoam food soils. Proteinaceous foods are specially troublesome in causing high, stable foams. Defoaming of these is particularly important in industrial dishwashers where soil loads are higher and spray pressures are greater. A useful machine for evaluating defoaming is a "Kitchen Aid" home dishwasher. Foam will reduce the rotational speed of the

free spinning rotor in the "Kitchen Aid" because it imparts less momentum to the rotor than would a denser water spray. Thus, rpm is indicative of foam; a high rpm of 100 to 105 would correspond to no foam. Under the test conditions, Surfactant C allowed little or no foam with the four test soils as indicated by the high rpm values. Surfactant B, although not quite as efficient as C, is nevertheless very widely used due to its great improvement over base alone. With less soil or a higher surfactant level, complete defoaming can be obtained with B. Surfactant D is noticeably less effective than the other two.

A further comparison between Surfactants B and C is shown in Figure 5. In this experiment, whole egg soil, which is considered by many to be most indicative, is used in varying amounts. These plots were obtained with 0.3% of a built detergent containing 1.25% surfactant. At this concentration, C is a very efficient defoamer, being distinctly better than B. With no surfactant, severe foaming is encountered with as little as 0.01% soil.

Another important measure of dishwashing performance is the ability of a surfactant to prevent spotting. A modification of a CSMA tentative method (4) was

Figure 5. Defoaming food soil



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NeoCryl A349

Very similar to NeoCryl A234U in general composition, NeoCryl A349 produces extremely hard films. This property provides floor polishes which have outstanding wearing qualities and which are highly resistant to scratching and scuffing. Also very light in color, NeoCryl A349 imparts a deep rich gloss and is ideal for both buffable and non-buffable polishes.

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SOAP and CHEMICAL SPECIALTIES

Table IV. Glassware Spotting Test⁽¹⁾

Appearance of Glasses after			
Surfactant	5 Cycles Spots ⁽²⁾	10 Cycles Spots ⁽²⁾	Relative Performance
B	11	17	good
C	7	10	excellent
D	15	19	fair

(1) "Kitchen Aid" dishwasher, 60 gms. "Hotpoint" soil, 40 gms. of alkaline base with 2% added surfactant, 250 ppm hard water at 132°F. Five test glasses are run through 10 successive cycles, which comprise one run. After drying, the glasses are examined under a fluorescent light for spots, deposited soil (filming) and haze. Alkaline base consisted of 35 parts STPP, 43 parts sodium metasilicate pentahydrate and 20 parts of soda ash.

(2) Average number of spots ($> \frac{1}{8}$ inch in diameter) per glass per cycle.

employed. In this test the capacity of a built surfactant to prevent soil deposition, spotting and filming on clean glasses included with a soil containing load is measured. Data are shown in Table IV, where conditions were purposefully made severe to permit comparisons among relatively good detergents. B has found wide use in the field and can be considered as good. Surfactant C is a relatively new material and can be seen to give less spotting than B. D is somewhat poorer than the other two and has found only limited use in the field in this application.

Surfactants are used in mechanical dishwashing as rinse aids in addition to their use as detergents. Here surfactants are added to the rinse water in industrial and home dishwashers to promote wetting of the load items. This will lead to fewer spots and promote faster air drying. Concentrations of the order of 50 to 100 ppm are generally added to the final rinse water.

To evaluate this effect, we used a "Hotpoint" dishwasher equipped with a "Plexiglas"* window. Here the relative wetting ef-

fectiveness is observed on soiled chinaware and stainless steel along with clean melamine plastic dishes and silver plate. Results are given in Table V, in which Surfactant D shows the best wetting. Surfactant B is next best while the others are relatively poorer; all are adequately low in foam.

In industrial dishwashing, defoaming action of a rinse aid can also be important because rinse water will sometimes be added in part to the soil containing wash water. Data in Table III have shown C to be best for defoaming with B next and D only moderately effective. Considering then both wetting and defoaming, B and D are the best compromises. Surfactant C is of possible interest as an additive to improve the defoaming of a formulation.

*Registered trademark of Rohm & Haas Company

(To be concluded)

Floor Wax Future

(From Page 71)

emulsion waxes progressed, their composition changed. The alkali soaps used as emulsifying agents were soon replaced with amine soaps, such as triethanolamine and morpholine oleate. The latter was particularly valuable in that morpholine slowly evaporates from the film and thus prevents re-emulsification of the film through application of water. Ammonia soaps have also been used for the same reason. Part of the carnauba wax was gradually replaced by oxidized microcrystalline waxes of petroleum origin. These waxes being softer in nature plasticized the film and made it easier to bring back the gloss by polishing after the wax film had been on the floor for some time and lost a bit of its initial gloss. Shellac, which is present in the emulsion floor waxes primarily for the purpose of imparting spreading and wetting properties to the product, has been replaced, in some cases, with water emulsifiable synthetic resins.

In the early days, an attempt was made to have the self-polishing

floor waxes appear and react in a manner similar to the old established solvent type waxes; that is, to have a mellow gloss and be capable of being polished further with abrasion. To accomplish this end, these products were high in wax content. As the memory of the classical waxes became dim in the consumer's mind and as the patterns in floor coverings became plainer, the consumer demanded a higher gloss and less of the true wax characteristic which evidenced itself by scuff marks from foot traffic. To satisfy this demand, the amount of wax in the composition was reduced almost to the vanishing point and the self-polishing floor waxes became colloidal suspensions of shellac and synthetic resins. Up to this point, the science involved in the preparation of self-polishing floor waxes, with the exception of the development of the water emulsifiable synthetic resins by the organic synthesist, was primarily the science of formulation with existing raw materials to produce a product of the proper physical characteristics with stability that would maintain it in the liquid state for several years and the development of processes for the production of such products in the factory.

Evolution Not Simple

It must not be considered, however, that the evolution of the emulsion floor waxes has been quite as simple as it may sound. There were many problems which involved various scientific disciplines. One of the most bothersome of these problems was the effect of time and temperature on the stability of the product. Freezing or long exposure to heat causes many of the water emulsion floor waxes to gel in the container. This gelled product, of course, was useless. This difficulty was overcome by careful balancing of the ingredients in the formula so that when subjected to accelerated testing the product was found to have a stability which would give it a shelf life, under normal conditions, of at

Table V. Rinse Aid Performance

Surfactant	Surface Tension .01%, 25°C.	Foam Hamilton Beach 70°C., cm.	Plate Wet-ting 70°C.
A	34 dynes/cm	0	poor
B	30	0.8	fair
C	38	0	poor
D	30	0.5	good

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Cockroaches	Clothes moths	Fleas
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Earwigs	Hide and carpet beetles	Spiders
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70% of the makers of liquid floor polish use polyethylene in their formulations



A market study just completed by Allied Chemical reveals that approximately 70 per cent of the manufacturers of liquid floor polish use polyethylene in their products today—a growth from less than one per cent three years ago.

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The rapid acceptance of polyethylene, which competes in the polish market with vegetable, mineral, and petroleum waxes, is attributable to the product's more stable price and the unique characteristics it imparts to the finished polish.

High gloss, nonslip, and long wearing are some of the consumer advantages cited by the study in accounting for polyethylene acceptance. Polish production advantages, an important area of discussion at the Chemical Specialties Manufacturers' Association meeting in New York, include broader pour temperatures and harder gels with increased solvent content.

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least several years. Stability is also affected by bacterial contamination. One particularly objectionable bacillus reduces traces of sulfur found in the raw materials to hydrogen sulfide under anaerobic conditions which, in turn, reacts with exposed iron in the container, turning the product black and giving it a very offensive odor. Sanitary conditions, therefore, must be maintained in the production facilities to prevent contamination by this bad acting bacillus and bactericides must be added to the finished product to maintain its sterile conditions.

Oxidized Microcrystalline

The introduction of oxidized microcrystalline wax and water emulsifiable synthetic resins, as partial replacements for carnauba wax and shellac, were not simple, straightforward substitutions. The softer, less gloss producing oxidized microcrystalline waxes, could not be substituted for carnauba wax until gloss producing resins had been synthesized and blended with these microcrystalline waxes to fortify their gloss producing properties as well as to harden them. The synthesis of these waxes and resins was spurred by the limited supply of carnauba wax.

Carnauba Wax

Carnauba wax, as I have said before, is produced from the leaves of a Brazilian palm tree. These trees grow wild and require 25 years to mature into a wax producing palm. Five trees require a year's time to produce a pound of wax. The total production of 10,000 tons of carnauba wax per year has not increased in many years. If carnauba wax were used in the proportions found in the original formulas for water emulsion waxes, the supply would fail by a wide margin to meet present day production needs. Water emulsion waxes constitute about 80 per cent of the floor wax market.

In the days when larger quantities of carnauba wax were

used in floor wax formulas, there was a great concern over this limited supply and the dark color of the greater part of the carnauba wax harvest. Plantations were established by S. C. Johnson & Son, Inc., in Fortaleza, Brazil, in which botanical studies were carried on to increase the yield and quality of the wax. Seeds from other species of copernicia palms, which also produce wax, were brought in from Cuba where a large number of species are to be found. Cross pollination of palms produced from these seeds with the original carnauba palm in Brazil is producing new species from which better yields are expected. This is a time consuming venture.

In the meantime, steps were taken in Brazil to improve the yield and lighten the color of the wax by the development of machines to harvest the wax. Previously the wax was harvested entirely by hand. Processes were developed for the refinement of the crude wax before melting which resulted in the production of much lighter colored, higher quality carnauba wax.

Since there was still far too small a quantity of carnauba available, which caused prices to rise, attempts were made to increase the world's commercial supply of hard waxes and thus take the pressure off of carnauba wax for floor wax production. To this end a vast source of hard wax was uncovered by the development of a process for the extraction of cuticle wax from filter press residues in the production of sugar from sugar cane. Several large extraction units using this process have been built and are operating in Cuba. A refinery for this crude wax, in which a commercial hard sugar cane wax is produced, has been built in Louisiana. Quantities of sugar cane wax are being marketed today which are valuable replacements for carnauba wax in such products as carbon paper.

Another important phase in the evolution of the self-polishing floor wax is the careful control that

must be maintained in the manufacture of this type of product as compared to the simpler, solvent type wax in which the primary control is merely maintenance of specified solid content. Because of the more delicate balance necessary in an emulsion floor wax, in order to maintain its stability and hold the desired properties at their maximum, more extended and exacting control of the precise composition is necessary. To this end the use of the infrared spectrophotometer and chromatographic analyses have played an important role.★★

(To be concluded)

Strouse, Inc.

(From Page 73)

had succeeded to the business of Arthur F. Strouse, originally founded in 1910 by A. Frank Strouse's father. The elder Strouse is still active in business with his son. From 1919 to 1954 the Strouse family had operated a food, candy and novelty business in the Norristown area, their native town.

Back in 1954 Strouse's first product was "Leather Life," a leather preservative and shoe shine spray. For a while it remained the firm's principal item.

Late in 1954 and early in 1955 it became evident that if the company were to grow and prosper, it would have to find additional capital. After much thought it was decided to raise capital by issuing stock with the assistance of H. A. Riecke & Co., investment bankers.

Placed on the market in December 1955 the stock was immediately sold out, enabling the company to buy badly needed equipment. The stock has since doubled its value, according to Mr. Strouse.

Another milestone in the company's progress was the installation in 1957 of bulk storage facilities for fluorinated hydrocarbon propellants. Financed from earn-



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ings, this installation effects savings in handling costs and time, enables the company to purchase propellants at considerably lower prices in tank trucks instead of ton cylinders. Furthermore, propellant loss through leakage is eliminated by the use of a closed system. Mr. Strouse expressed his belief that by this installation "we have improved our competitive position in the aerosol field and consequently bettered our chances of retaining old customers as well as receiving new packaging contracts."

Mr. Strouse paid a special compliment to the "Isotron" propellants department of Pennsalt Chemicals Corp. and was equally full of praise for other suppliers who helped him over rough spots in the company's history. Pennsalt provided the drawings for tank layouts when the firm moved its



A portion of the research laboratories of Strouse, Inc., Norristown, Pa.

consumer product filling operations to its present location.

One of the individual successes which make up the story of the firm's progress was its share in equipping the Antarctic Expedition. Strouse was entrusted with the

pressure packaging of the highly volatile liquid engine starting fuels developed for use in frigid climates. Since then, these starting fuels have become popular for use on small engines such as boats and home power mowers. Most truck fleet operators rely on starter fuels to get their trucks on the road faster.

Aerosol filling line in Strouse plant No. 2. This line is used mainly to fill a diversified line of pressure packaged household chemical specialties.



Strouse packages the fuel in ICC approved "Spratainers" (Crown). Injection of the product in the form of an atomized aerosol spray constitutes a major improvement over the original method when the explosive fuel was simply poured into the carburetors.

Among more recent additions to the Strouse line of pressure packaged specialties are fire extinguishers, household lubricants, bandage sprays, plant growth regulators, and a variety of sachet sprays.

Mr. Strouse told *Soap and Chemical Specialties* that he is currently working on a new packaging development in the food field, which he claims will change the entire concept of food preservation and marketing. He declined to reveal details but there is no doubt that the method will be revolutionary if it is practicable.

After some unsuccessful attempts to have his air fresheners marketed by other organizations Strouse decided to sell them under his own label through brokers. They are now doing very well un-



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WHITE OILS AND PETROLATUMS



Plant No. 2 of Strouse, Inc., Norristown, Pa., for loading non-volatile aerosols.

der Strouse's trade names "French Mist" and "Camette." Four fragrances are being turned out: pine, spice, lavender, and lilac.

Stress on research and development and design of much of its own equipment are among the cornerstones of Strouse's position in the aerosol field. The custom designing and building of a novel compressed gas mixing and proportioning system is another of its achievements. A fully automated line for the loading of metered perfume units is one of Strouse's designing feats.

When the ether filling operations were first started the insurance premium was about eight per cent. By developing safe processing methods Strouse succeeded in reducing the premium considerably. Today the explosion proof plant has approximately 13,000 square feet of floor space, handles about 350,000 to 400,000 gallons of ether a year. A big future in government work is expected for this plant.

In addition to A. Frank Strouse, president, the following are key executives of the organization: Arthur F. Strouse, treasurer; John Pontin, general manager; William Bechtel, manager of plant No. 1; William Hitman, manager, plant No. 2; and Charles Graber, general superintendent.

Carl S. Hedstrom was recently added to the staff to expedite government contract work and two salesmen were engaged a few weeks ago.

The company is authorized to issue additional stock but does not plan to do so unless funds are needed for expansion of the

business. Its balance sheets show steadily increasing profits.★★

Insect Attractants

(From Page 76)

subtle difference in chemical structure makes a big difference in performance, we devised a means of making the all-*trans* product and also a method of analysis that would insure procurement of the *trans* product (7).

We have Medfly lures now that are superior to Siglure (4). Medlure, shown in Figure II, has

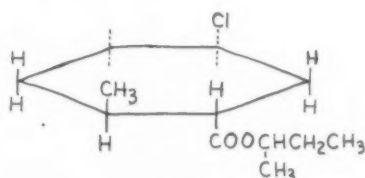


Figure II

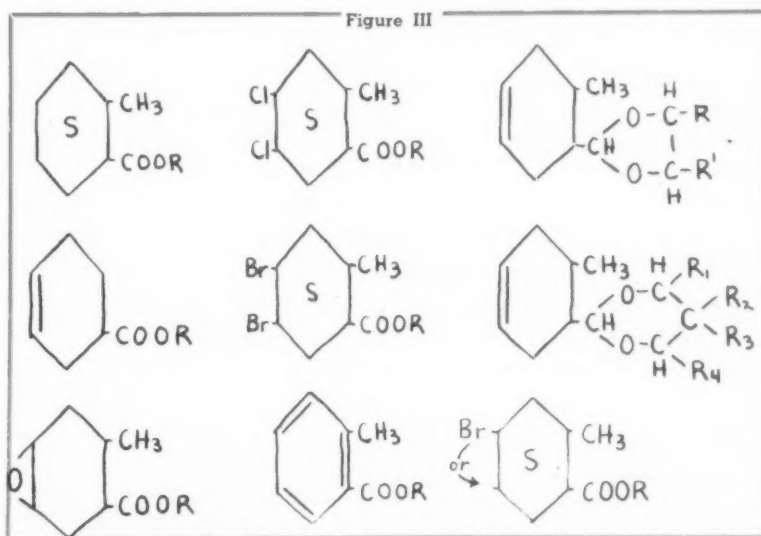
already been produced commercially. It is the hydrogen chloride

adduct of Siglure. The analysis of this lure is a chemical headache because it can exist theoretically in eight different forms. We do not know which of the forms we have in our preparation. All we know is that it is the most attractive preparation we were able to make and that we can make it in high yield.

The *tert*-butyl ester analog of Medlure is more attractive to the Medfly than Medlure itself. We can't use it yet because we do not know how to make it in good yield, but we are working on this. Figure III gives examples of other chemicals we prepared and discarded in favor of Siglure and Medlure.

What do the chemical structures of some other insect lures look like? Some of our best ones are shown in Table III. Any resemblance between these lures and those found in nature is purely accidental. A number of structure types are represented. The first compound in Table III, methyl eugenol, attracts the oriental fruit fly (9). It is supposed to be the most powerful synthetic insect lure known. We've made a series of related compounds, and although none was as good as methyl eugenol, we noted that this insect is attracted to compounds containing methoxy- and ethoxyphenyl groups. The second compound, anisylacetone, was until recently the best

Figure III



for
floor
waxes
that
really
stand
up...



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1582 WATEREZ alkali soluble resin

■ In floor wax, the use of Reichhold's 1582 WATEREZ, an alkali soluble resin, allows a much broader range of floor finish raw materials than previously possible. A formula with up to 25-30% of 1582 WATEREZ insures outstanding gloss and levelling without embrittlement or powdering. Another advantage of this resin is its rapid solubility at temperatures as low as 85-100° F., with excellent stability of the resulting cuts.

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Sulfuric Acid • Methanol

REICHHOLD
REICHHOLD CHEMICALS, INC., RCI BUILDING, WHITE PLAINS, N. Y.

melon fly lure (1). It has a serious defect in that it attracts melon flies only after they mature sexually, i.e., about 12 days after emergence from pupation. The third, fourth, and fifth compounds are structurally similar to anisylacetone and are brand-new lures for the melon fly (3). Not only are they much more potent and persistent than anisylacetone but they attract even newly emerged flies. The advantage of detecting and controlling an insect before it has a chance to mate is obvious.

While efforts to isolate the gypsy moth natural sex lure go forward, attempts to find a synthetic lure for this species by volume screening have not been neglected. Indeed it has been found that 1,2-hexadecandiol and 1,2-epoxyhexadecane, the next compounds in Table III, attract the male moth but not as strongly as the natural sex lure (10, 11). These compounds are closely related to the sex lure of the silkworm moth which Butenandt *et al.* (2) reported to be 10,12-hexadecadien-1-ol, the last compound in Table III. The fact that all of these lures for Lepidoptera are straight chain-compounds containing 16 carbon atoms may be of some significance.

Commercial Potential

We have had many inquiries concerning the commercial possibilities of these insect attractants. While their future is not predictable, a few reflections on their

commercial potential are in order. Thus far they have proven effective only for detection purposes. Unless the infestation is large, the amount of chemical required for detection will not be great. For example, the USDA is now using in a year's time only about 1000 pounds of the Medfly attractant. If the synthetic gypsy moth attractant were used, less than 100 pounds of chemical would be required to service the 30,000 traps normally deployed each year. Limited amounts of lures may be useful for timing spray applications. However, it would hardly be profitable for industrial organizations to search for lures if these small volumes of chemical were all that they could sell. This is one reason why the government must sponsor the research needed to find these valuable materials.

Much larger amounts of attractants would be needed if lures were useful for direct control. For example, a specific lure in combination with a toxicant may be effective in reducing populations of a harmful species without endangering the beneficial ones, or wildlife either. We are looking into this possibility. For example, specific lure-toxicant combinations could be used to depress the male insect population and then sterile insects of that species could be released to complete the annihilation of the males. No doubt other means of utilizing these lures will be suggested.

There is a real need for good insect attractants to increase the efficiency of insect detection and control operations. Intercontinental trade and traffic are rising rapidly, increasing the danger of introducing foreign insect species that will menace our agricultural resources. Once such foreign pests become established, eradication measures and loss of agricultural products can be very costly. We can minimize this threat by investing in a low-cost form of insurance; the search for and use of insect attractants for the early detection of these potential insect invaders.★★

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Marketing Specialties

(From Page 85)

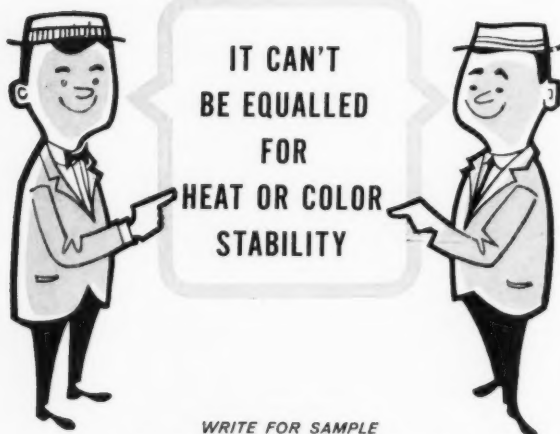
we find a poor approach. This type of selling tends to antagonize the customer and may even effect his solvency. We have found that steady conservative pattern of buying is much better in the long run

Table III Insect Lures

Structure	Type	Insect
	Ether	Or. fr. fly
	Ketoether	Melon fly
	Ketoester	" "
	Ketoester	" "
	Ketophenol	" "
	Alcohol	Gypsy moth
	Epoxide	" "
	Unsatur. alcohol	Silkworm moth

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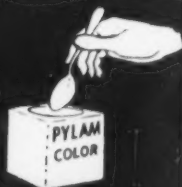
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Coconut Oil Outlook

(From Page 54)

The scope for improved productivity from mature stands is undoubtedly very great. Average yields vary considerably in the areas most favored for the development of coconut. In some of the best producing areas it is reckoned that 90 nuts per palm a year is the average yield. In many of the producing countries around half that number is normal. Again, it is generally reckoned that well-managed farms produce a 1000 to 1200 pounds of copra an acre. Smallholding yields have been estimated to average a third to a half of this figure. These differences largely reflect differences in levels of management, in fertilizer use, drainage, and cultural practices generally. Much scope also exists for the raising of copra output through better drying methods which reduce losses through moulds, insects and scorching.

Short term measures to improve yields are receiving more attention. Administrations in the main coconut areas rely heavily on overall planning of integrated measures for general agricultural development. Most of the newly independent countries dealt first with the task of establishing an administration and with high priority programmes, such as ensuring supplies of basic food grains. Only in the late 1950's did they turn to more specialised programming for other crops. We find that there are now a number of detailed schemes for coconut development, with emphasis on short term measures such as fertilizer use and more extension services. I think it reasonable to expect that the impact of government programs on coconut will be greater in the 1960's than in the last decade. Let me



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Called Fairfield Residual Concentrate No. 1, it is a combination which includes Pyrenone^{*} — pyrethrins with the synergist piperonyl butoxide—and Malathion. Easily diluted with a base oil and used as a surface spray, the new concentrate is highly effective against crawling, flying and resting insects.

Prepared for indoor use at a suggested dilution rate of one part concentrate and nine parts base oil, Fairfield Residual Concentrate No. 1 has a high knockdown rate because of its Pyrenone component. This factor also enhances its value in dealing with many resistant fly and roach strains. Its Malathion component is widely known for its effectiveness in residual roach control.

One long-established characteristic of Malathion—its inherent odor, even at high dilution levels—has been markedly reduced by Fairfield research without interfering with its insect-killing properties. Thus, the new concentrate may be used in high traffic areas where previously a strong chemical odor would be a deterring factor.

Because it adapts easily to application by commonly used spray equipment and because of its ability to control a wide range of common pests, Fairfield Residual Concentrate No. 1 is ideal for general purpose use. It may be applied for spot treatment of such crawling insects as cockroaches, ants, spiders, silverfish, crickets, clover mites, carpet beetles, scorpions, boxelder bugs and brown dog ticks. Residues formed by the spray are fatal to resting houseflies, wasps and mosquitoes.

Formulary data and suggested label information are included in a new, free technical bulletin F-16, available upon request.



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give an example of this in one country.

In Ceylon, as noted, there is a rehabilitation programme for planting high quality seedlings. Complementing this, in 1956 the government introduced a coconut fertilizer subsidy scheme at a cost which will come up to \$1.7 million a year. Last year, after three years of operation, it had already given considerable impetus to the use of fertilizer on the island. It is estimated that by 1970, this measure alone can raise the output of coconut by more than the foreseen increase in domestic needs, and by an annual value of \$10 million a year. A more limited scheme of fertilizer subsidy is being carried out in India on selected holdings for demonstration purposes. Ceylon's scheme is probably furthest advanced, but other producing countries may well get similar plans into operation in the next few years.

General Economic Factors

The need for foreign earnings to support general development will continue to be a strong incentive for maintaining exports of primary agricultural products, including copra and coconut oil. Export controls by producers' governments since 1945 have caused countries dependent on imports to make large shifts to ensure their supplies, but such national policies of export control have affected coconut oil less than some other fats. At the present time it does not seem likely that any exporting government, with the exception of Indonesia, will deliberately restrict shipments. Most will be inclined to encourage them. Indonesian copra supplies are still likely to be influenced by controls to ensure supplies to domestic mills, but the present level of exports from that country is now so much lower than previously that any further restriction on exports would affect the world situation much less than five years ago. Import controls, on the other hand, tend to augment supplies to the West, since pro-

ducer countries which exercise quantitative controls on imports of copra or coconut oil (India, Burma, Pakistan) are more likely to reduce their trade than to expand it beyond the peak level of 290 million pounds (as oil) reached in 1957.

The general economic situation will also affect prospects. Being a tree product, copra supplies cannot fluctuate too readily with the price levels. It may be supposed that general economic conditions would have to be very bad before supplies failed to come forward because of unsatisfactory prices. Protracted slumps, fortunately, so far have been avoided in the post-war world. If general prosperity can be maintained, and short term instability in prices can be minimized in the 1960's, the economic background will be more favorable to the necessary improvements in marketing in the growing areas, to the introduction of price incentives for producers, and to investment in coconut growing and processing.

Summing up the coconut oil supply situation, I have taken a rather pessimistic view of the possibility of world market expansion in the 1960's. The long term upward trend in world market supplies is likely to level off in the next decade, as a result of factors which have been building up for a long time. These are the slackening of the production trend due to the proportion of aging trees, the effect of previous prices for the next five years, the possible spread of cadang-cadang disease, and the growing domestic markets in producing areas. Offsetting factors are efforts to increase productivity in coconut growing and processing, and the desire of exporters to maintain shipments. If the market situation is favorable, it should be possible to prevent any sharp reduction in supplies and towards the latter years of the decade to reverse any tendency to a downturn which has developed.

(To be concluded)



GLOSS?

**SCUFF
RESISTANCE?**

DURABILITY?

LEVELING?

ANTI-SLIP?

SHELF STABILITY?

REBUFFABILITY?



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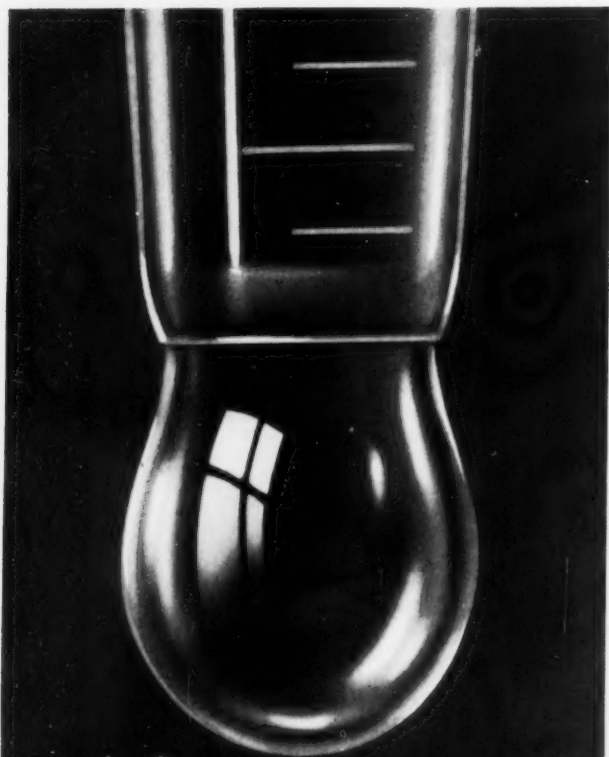


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Attach this ad to your calling card and mail today for ☐ free literature, or ☐ a meeting with your local 'Vulcansultant' a technical man who can help you with your container problems. • *In California:* Vulcan Containers Pacific Inc., San Leandro • *In Canada:* Vulcan Containers Limited, Toronto, Vancouver, B.C. **VULCAN CONTAINERS INC., Bellwood, Illinois, Phone: Linden 4-5000** SCS-20

Packaging...

AEROSOLS • LIQUIDS • PASTES • POWDERS

"Shina Dish" liquid detergent of Tidy House Products Co., Shenandoah, Ia., is now being packaged in rigid plastic bottle. Of pinch-waist design, new package features unusual ribbed effect at shoulder which makes for easier handling. Pink bottles come in 12 and 22 ounce sizes and have built-in pour spouts. Label is white with reverse lettering. Owens-Illinois Glass Co., Toledo, supplies both plastic bottles and white plastic closures.

Automotive
Chemicals
Cleaners
Detergents
Deodorants
Disinfectants
Floor Products
Insecticides
Laundry Bleach
Metal Cleaners
Moth Products
Polishes
Shampoos
Shave Products
Soaps
Liquid Starch
Toiletries
and other
Chemical Specialties

*A market for over 28
billion packages annually*





METRO ^{IS} FOR *leading men*

But you don't have to be a Don José to get attention from Metro. Just a gentle pianissimo and presto — all sizes and shapes of glass containers when you want them — where you want them. As our hero's dressing table indicates, Metro performs a unique packaging service for the drug and cosmetic industries as well as all other major fields. Service is the big plus at Metro and that's not lip service. It's individualized, expert attention for all of our customers it's when you want it how you want it it's *Metromatic!*



MANUFACTURERS OF QUALITY GLASS CONTAINERS

METRO GLASS

DIVISION NATIONAL DAIRY PRODUCTS CORPORATION
GENERAL OFFICES: JERSEY CITY 3, NEW JERSEY

Good packages are:

Salesmen Who Work for Nothing

By Walter F. Kohn*

Marketing Counsel
Croton-on-Hudson, N. Y.

Part II

ANOTHER package says "Frost Off" in big, unmistakable, easy to read letters. An artist might quarrel with the choice of colors, but I wouldn't unless measurements proved to me that they were wrong.

The name tells me this is something to melt the ice on my windshield. So far, so good. But there's a little wedge squeezed between the word "Frost" and the word "Off." It is hard to read, but it says, "King of all."

This damages what is otherwise a very good package. "King of all" is such a trite and generalized claim that it lost its selling power ages ago—not that it ever had very much. If the artist felt he needed that wedge as an added element of design, he was wrong; it is unnecessary. The package would sell itself much better without it. So:

Tell your story fast.

Tell it simply.

Don't interrupt.

Some of you may say, What about color? That raises three more questions:

1. How is the color distributed?
2. What does it do for legibility?
3. What is its psychological effect on the buyer?

Soap and food packages are riots of color. We can't put strawberries and cream and "Rice Krispies" on our packages of chemical specialties, but we can get equally telling effects with color. Some are using dazzling backgrounds of colored aluminum foil. "Noxon" is doing an effective job with its white lettering against green foil. I am sure there are many others I haven't seen.

However, I have seen one package with red lettering against a bronze colored background. And that's not only an eyestrain—it's an absolute blank when you first see it, especially under a strong light. It invites looking away to the next package—and never coming back. Which means you have lost the buyer's attention, and the sale along with it.

I am not going to dwell on people's reactions to packages; there are well established scientific procedures and measurements for testing and judging them.

To get a favorable reaction from the customer, you don't need anything fancy, or elaborate, or tricky. The "Uneeda Biscuit" box, the "Coca-Cola" bottle, the package of "Kleenex," all tell you in a flash what they are.

Now in a field where one product may be very much like half a dozen of its competitors, you may have some advantage you want to point up. Maybe it is



"Frost Off" windshield deicer-defroster of King Manufacturing Co., Flint, Mich., describes its function in "unmistakable, easy to read letters", says author. Product name is white on blue overall background. Gold diamond insert between "Frost" and "Off" overprinted with words "King of All".

convenience. And if you don't have such a convenience, maybe you can sell more goods by creating one.

Let me cite another case—and this is where a smart retailer may have stolen a march on some of you, although he could have done even better than he did.

Before you wax and polish a car, you have to wash it. I'm sure you all know how to make washing powders or synthetic detergents. As far as I know it's only recently that this kind of product has been called a "Car Wash." Sears Roebuck offers its "Car Wash" in three forms: You can buy it as a powder in a one pound round can for 69 cents, or as a liquid in a 12 ounce can retailing for 59 cents.

The third form is the most interesting. It consists of a package of twelve little envelopes of detergent powder, selling for 39 cents. Let's see what Sears does with this package. (See cut page 114.)

First, I asked the clerk—when I found one—how his "Car

*Paper presented at 46th annual meeting, Chemical Specialties Manufacturers Association, Washington, D. C., Dec. 9, 1959.



A "most interesting package", containing 12 individual packets of car wash detergent, fails in two respects. The envelopes are unprinted, thus missing a sales message opportunity, and while product was claimed to be designed especially for car washing, a list of other uses is printed on the package.

Wash" differed from ordinary laundry detergents. He said "This is made especially for cars. Each envelope has just enough for washing one car."

Well, that's certainly a convenience for the consumer. Yet only the top of the package—which you don't see when it's on the shelf—tells me that the twelve envelopes wash twelve cars. The envelopes are blank and unprinted. What an opportunity Sears lost there! And while I was told that "Car Wash" was made especially for cars, the side of the package tells me I can also use "Car Wash" for painted walls, woodwork, floors, bathrooms, china, venetian blinds, dairy equipment, and half a dozen other things. In other words, the package doesn't support what the clerk claimed for it—that it was made especially for cars. Maybe the designer ran wild.

Not knowing when to stop is one of the chief hazards you're up against when you begin designing a package. You always have to resist the temptation to say too much, and you have to keep the artist from filling all that beautiful white space in the background.

There's another reason for doing this. A motor detergent I

saw displayed on a gas station counter had a clean, easily read bull's eye effect. But this was only on the front of a round can, one-third of the label. The other two-thirds were covered with what must have been a thousand words of explanations, selling copy and directions.

The store where I saw this had three of these cans highspotted on counters and shelves to give the package prominent display. But all three packages were turned back-side front, so that all you saw was a lot of small print that defied you to read it, let alone try to find out what it was selling. When I suggested to the retailer that he turn the cans face forward so customers could tell what was in them, he said, "It doesn't sell anyhow"—and never made a move!

Directions are an important part of every package. They must be kept as short and as simple as possible, placed where they will be seen and read, and placed so as to carry out or support the basic package design, not fight it. A good package, like a good salesman, should learn to ask for the order in the fewest possible words, and shut up when he's finished.

I have just mentioned a counter display. That's another selling tool that can give your packages extra attention. There are many others: posters, dispenser racks, decalcomanias, banners, and so on. One of the most effective of all selling tools is the mass display.

A mass display puts an extra hazard on your package, because it means:

First, it must be strong enough to withstand stacking and rough handling.

Second, it must be easily read and identified whichever way you turn it.

And third, it must do its selling job no matter where or how it is displayed.

Stacking bottles on top of each other is not easy. Cone top cans give you stacking troubles,

too. This is why both the can and the glass people are making more and more flat-topped bottles and cans; in many aerosol packages, an extra, flat-topped cap, the full width of the container, is sometimes added to make stacking easier. You will see many new developments along these lines before too long.

Well, now, we know what a package has to do:

1. It has to protect its contents against all the hazards of shipping and handling, and get to the consumer in presentable shape.
2. It has to tell what it is, clearly and simply.
3. It has to tell what it does, and do it quickly. And that includes directions.
4. It has to sell itself on sight, without the retailer's help.
5. It has to have the support of advertising and selling tools at the point of sale.

After we have done all this, and turned out a pretty wonderful package, we can still fail.

Why? Because when you give your product a new package it's like buying your wife a new dress. Even if you support it with new shoes and new hat and costume jewelry, you still need to take her to a party where she can shine.

It's the last step that completes the marketing cycle of your package and carries it to its logical end—to that last sale to the last possible consumer. This is the pinch hit we need after the consumer has called two strikes on us. This is what decides the game. What are we doing about it?

A retailer told me that one summer day a supplier sent around a well-built blonde dressed in tights, decorated with a ribbon that advertised a chemical specialty. If the dealer bought a few cases of the chemical, she would let him pose with her for a picture, and give him a print of it.

Well, he bought the deal.

(Turn to Page 125)

PACKAGING NOTES

Two New Canco Directors.

William F. May and Clarence L. Van Schaick were elected directors early this month of Amer-



William F. May

ican Can Co., New York. Both are vice-presidents of the company. Mr. May is in charge of the Canco division which makes metal cans for chemical specialties, detergents, and a vast range of other consumer products. Mr. Van Schaick is responsible for the Dixie Cup division which produces paper cups, plates, and dishes. Mr. May joined American in 1938 and has been a vice-president since last February.

Knox Declares Dividend

A dividend of 25 cents per share was declared last month by Knox Glass, Inc., Knox, Pa., payable Mar. 10 to shareholders of record on Feb. 25. At the directors' meeting, Alexander W. Lansberg, treasurer and controller since 1955, was elected vice-president and assistant to the president. He continues in his former post until the election of a replacement, according to Arthur W. Wishart, president.

Knox reported net sales for the fiscal year ended Sept. 30, 1959 of \$42.6 million, an increase of 16 per cent from the \$36.8 million re-

ported in the previous year.

Officers re-elected by the board include: Dr. Wishart, president; Clarence R. Deible, vice-president; C. L. Rossman, vice-president; J. D. Lynch, secretary; and E. C. Mayfield, assistant secretary and assistant treasurer.

Metal Tube Use Increases

Collapsible metal tube shipments increased by 16 per cent in the 10 month period ended October 1959 over the corresponding 1958 period, it was reported last month by the Collapsible Tube Manufacturers Council. Units shipped in 1959 totaled 961,423,344, compared with 832,343,328 units in the previous year. The sharpest gain was in tubes for cosmetics which showed a 31 per cent increase for the ten month period, from 66,551,472 units in 1958, to 86,993,280 units last year.

New Vulcan Representative

Gerry E. Cook has been appointed sales and service representative in Tennessee for Vulcan Steel Container Co., Birmingham, Ala., it was announced last month by Gordon D. Zuck, president. For the past 15 years he has been active in the chemical and paint fields

Gerry E. Cook



specializing in the sales of raw materials and supplies. Vulcan manufactures a complete line of pails and drums in capacities from one to 65 gallons with "hi-bake" linings and lithographed exteriors.

Sees Plastic Bottle Rise

William M. Cameron, executive vice-president of the glass and plastics operations group of Conti-



William M. Cameron

nental Can Co., New York, recently revealed that his company has in development a fully automated, high speed line of equipment for both bottle blowing and printing of plastic bottles said to obsolete the industry's presently available fabricating equipment. The new equipment was developed for packaging high volume items, such as detergents, in plastic bottles. Operating costs on the new equipment are expected to be lower and with the development of a volume market plastic resin producers may also be able to reduce their costs, Mr. Cameron noted. He predicted that plastic bottle production might possibly reach the one billion unit rate in 1960.

New O-I Container Plant

Owens-Illinois Glass Co., Toledo, O., announced last month that it is going to build a multi-furnace glass container plant at Brockport, N. Y., 12 miles from Rochester. The new facility, described as the "glass container plant of tomorrow," will occupy

THE BEST REASON TO TRUST PRECISION WITH YOUR PRODUCT

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**PERFORMANCE-PROVEN ON EVERY
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On October 18, 1959 at 10:25 in the morning, Precision Valve Corporation produced its one billionth aerosol valve. Ten years of research, study and experience went into its creation and in those same ten years, the aerosol package came of age.

Today, almost any product that can be poured or powdered can be dispensed in an aerosol . . . always dispensed with greater ease and more convenience, usually at less cost.

Precision Valve Corporation's Research Department will be happy to help you build a better package for your product with the valve of proven quality.

PRECISION VALVE CORPORATION
700 NEPPERHAN AVE., YONKERS, N. Y. • ZURICH

* Calculated on the basis of about 100 actuations per aerosol . . . from the 56 uses of an air sanitizer through the 198 times actuated tooth paste container, not including foreign production.



300,000 square feet on a 70-acre site which has railroad frontage of 850-feet. According to Carl R. Megowan, president, the plant will feature the latest improvements in glass making and will be one of the most highly automated glass container plants in the world. Building of the plant, he said, reflects the company's confidence in the future of glass containers. He predicted that production of bottles and jars this year should reach a record high of 23 billion units. Ground for the Brockport facility will be broken sometime this year with completion of construction scheduled for 1961.

—★—

Waters in Plax Post

John M. Waters has been appointed director of administrative services for Plax Corp., Hartford, Conn., it was announced last month by Robert F. Elder, president. Mr. Waters retired from the U. S. Navy late last year with the rank of captain after 21 years service. His last assignment was planning officer for the Boston naval shipyard. Mr. Waters holds an M.S. degree from Massachusetts Institute of Technology in naval construction and engineering, and has completed advanced management studies at the Harvard Graduate School of Business Administration.

—★—

Sees Glass Container Rise

A six per cent rise in glass container production for 1960 over last year was predicted recently by Carl R. Megowan, president of Owens-Illinois Glass Co., Toledo, O. The increase would amount to a record total of 23 billion bottles and jars this year. As for the entire packaging industry, Mr. Megowan declared that all production records should be broken in the next decade. He noted that new products will be the key to new package development. O-I is opening or starting construction this year on five new plants for production of glass containers, semi-rigid plastic containers, and corrugated shipping boxes.

Alexander Canco V.P.

Claude L. Alexander has been appointed a vice-president of American Can Co., New York, it



Claude L. Alexander

was announced last month by William C. Stolk, president. Mr. Alexander continues to supervise the over-all operations of the company's Bradley-Sun division in Hillside, N. J., producers of extruded plastic squeeze bottles and tubes, and collapsible metal tubes.

—★—

Hofmann in Vulcan Post

Robert W. Hofmann has been appointed to the newly created post of technical service representative for Vulcan Containers, Inc., Bellwood, Ill., it was announced last month by Vern I. McCarthy, Jr., president. Mr. Hofmann acts in a liaison capacity between customers, field sales representatives and plant production. He is also responsible for counsel-

Robert W. Hofmann



ing in the use of "Hi-bake" protective interior linings for the company's line of steel containers. Before joining Vulcan, Mr. Hofmann was plant superintendent in charge of quality control, production, and purchasing for Flint Ink Corp., Broadview, Ill.

—★—

Celanese Buys Royal Mfg.

Celanese Corp. of America, New York, recently acquired Royal Manufacturing Co., Prescott, Ariz., manufacturer of plastic bottles and containers for liquid detergents, household specialties, bleach, cosmetics, and similar products. At the time of the acquisition, Richard W. Kixmiller, president of Celanese Plastics Co., announced that Royal's facilities would be expanded by increasing the capacity of its Prescott and Chicago plants and starting the operation of a new plant on the east coast by April.

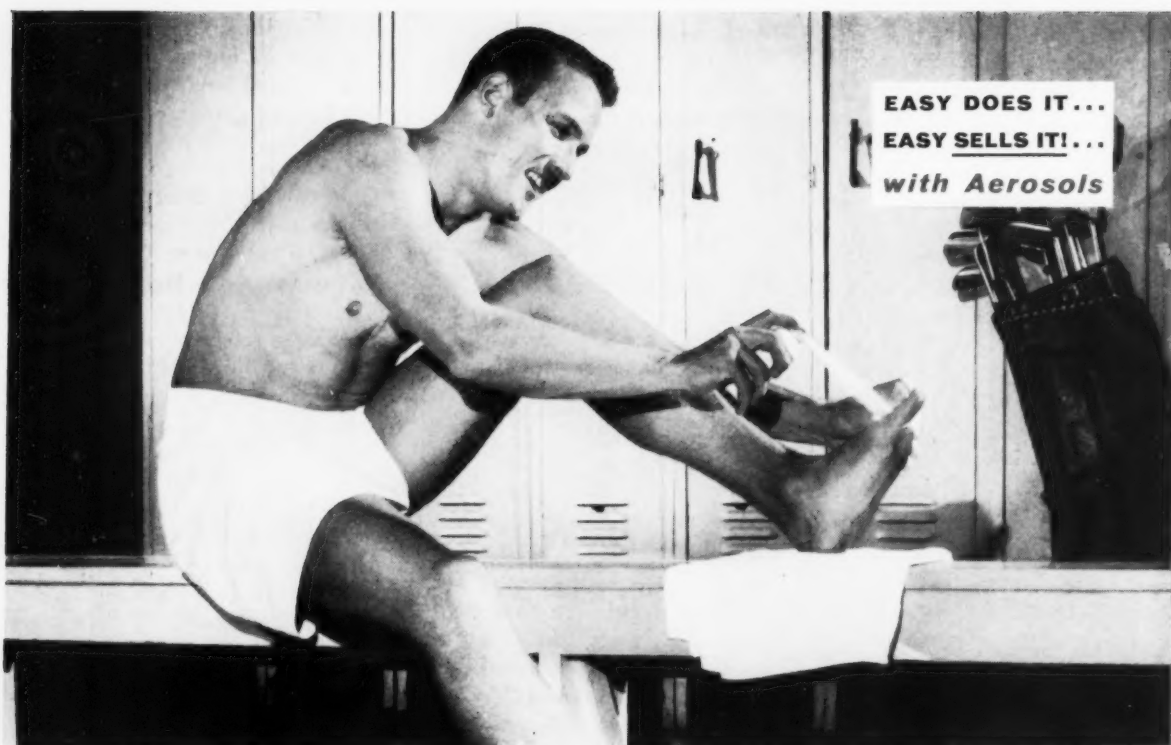
The plastic container industry represents a potential annual market of 250 million pounds of linear polyethylene. Celanese produces polyethylene under the trade-name "Fortiflex," for making plastic containers.

Royal is being operated as a division of Celanese Plastics Co. with C. C. Coates, founder and president, continuing as chief executive. Mr. Coates predicted that linear polyethylene will soon account for more than 80 per cent of liquid detergent containers and may approach 100 per cent in another year. Plastic detergent containers are being produced at an annual rate of about 500 million units, he said.

—★—

New Continental Pail

A new five gallon flaring pail of one-piece, one-seam, electrically welded body construction, was developed recently by Continental Can Co., New York 17. The electrically welded seam is said to provide a positive, leak-proof seal for packaging liquids as well as dry and powdered products. The pail is available in 29 gauge steel throughout and heavier gauges will be offered soon.



The Magic Touch of Aerosol Packaging could be your **R_x** for bigger pharmaceutical sales

Ever ask yourself these questions? *Would my pharmaceutical product be "better" as an aerosol? Would aerosol packaging make it easier to use or more acceptable? Would it generate more sales? Would it yield a better margin of profit?* Chances are, if your product can be sprayed, poured, dusted or daubed the answer to all these questions is *yes!*

Last year, pharmaceuticals were the fastest growing of all aerosol product groups—showing a sales increase of 50% in 1958 over 1957, compared to a 20% increase for all aerosols. And the market is still growing fast. It is expected that sales will reach \$200 million by 1961!

Right now's the time to plan on capturing your share of the booming aerosol pharmaceutical market. And to help you get started in aerosol packaging of your medicinal product, General Chemical offers many valuable services.

Forward Research

As an extension of its own aerosol research and development program, General Chemical has initiated a grant-in-aid program at a large eastern college of pharmacy expressly for the study of pharmaceuticals in aerosols. Such research on all phases of pharmaceuticals as aerosols will help accelerate development of many new products. Also, advance research in our aerosol laboratories has led to the

development of typical formulations for a number of new or improved aerosol products. These are available to interested marketers.

Contract Fillers

We will also be glad to put you in touch with highly capable contract fillers, who can put up small test runs for you or handle full-scale commercial production. They will work with you from planning and testing through to volume filling. You don't have to invest a cent in equipment or production personnel when you work with these contract fillers!

For further information—or if you would like to arrange for a special presentation—write today to "Genetron" Dept., General Chemical Division, Allied Chemical Corporation.

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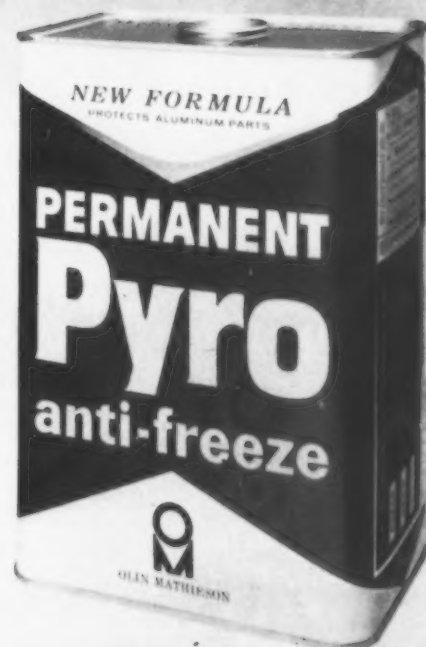
GENERAL CHEMICAL DIVISION

40 Rector Street, New York 6, N. Y.

What's New?

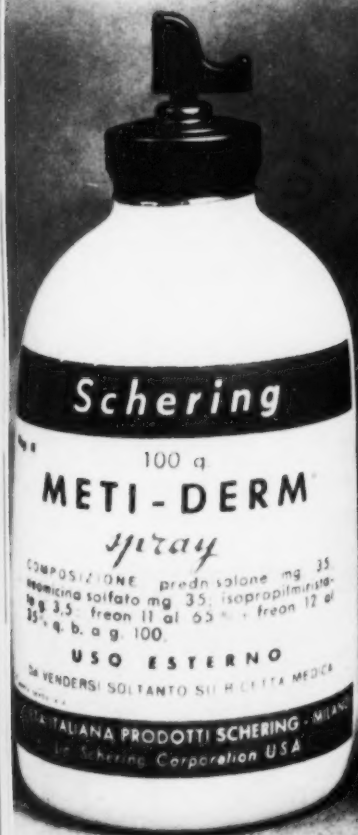


Lever's liquid "Lux" detergent is now packaged in high style plastic containers. Dark blue labels with product name in white reverse contrast with sharp whiteness of plastic bottles. The easy-gripping bottles come in three sizes: "regular", 12 oz.; "economy", 22 oz., and "giant", 32 oz. Bottles and caps supplied by Owens-Illinois and Plax Corp.



New "Permanent Pyro" anti-freeze of Olin Mathieson Chemical Corp., New York, is claimed will not corrode aluminum or other metal engine parts. Product was developed in anticipation of wider use of aluminum in automobile engines, according to the maker. One of the problems in developing the new formula involved finding an improved corrosion inhibitor system. This in turn involved a correctly balanced formula. The new formula, according to Olin Mathieson, results in an improved ethylene glycol anti-freeze, harmless to non-metallic parts and non-corrosive to all metals. "Permanent Pyro" comes in purple and white gallon and quart size cans.

New dispenser packages, left, for four and three ounces cakes of para deodorant blocks were introduced last month by Click Chemical Co., Mount Vernon, N. Y. Each unit, which is designed to be hung on wall, holds 12 blocks. Twelve packages are packed to the case. New dispenser units are available under private label. Blocks come in wide range of scents.



New "Dowgard" cooling system fluid of Dow Chemical Co., Midland, Mich., which is to be marketed this spring. Touted as an "all-weather" automotive coolant, the product is described as a blend of diethylene glycol, ethylene glycol, "balanced" inhibitor systems and "specially-treated" water. The product is designed to give automotive engine cooling systems protection against rust and corrosion, freezing and overheating down minus 45°F. to plus 240°F. for one year.

"Meti-Derm" spray, a topical dermatological medication, first introduced in the U. S. is now available in Italy. The second pharmaceutical aerosol product to be marketed in Italy. It is made by Società Italiana Prodotti Schering of Milan, licensee of Schering Corp., Kenilworth, N. J. "Meti-Derm" spray uses aerosol valve and actuator made by Solihens, S.p.A., licensee

of Bledon Manufacturing Co., Naugatuck, Conn. The spray is packed in plastic coated glass bottle.

New Odell "Odex" electric shaver care product in aerosol package was announced recently by Odell Co., Newark, N. J., manufacturers of toilet preparations. Container is by Continental Can Co.; valve is by Precision Valve Corp.

Just added to the regular paint line of United Lacquer Mfg. Corp., Linden, N. J., is "Multakolor" pressure package spray paint. Described as an "all-purpose" texture spray enamel that provides two or more colors in a single application, the paint comes in a wide range of decorator colors. It may be applied to such surfaces as "Sheetrock", plastic, wood, metal, or composition. The maker claims the paint dries fast and is washable.

Quick, Power & Gentle Cleansing - A new auto detergent is now available in small size packs for use through vending machines in coin-operated laundries. Four and one-half ounces of product are packaged in the new "Dash 100's Coin Vended Size". This amount is enough for two eight pound washings in front loading automatics and one load in top loading automatics in double size front loaders (16 lb load). Vending units for the "Dash" are made by Vending Machine Manufacturing Co., Chicago. A case of the new size "Dash" package holds 100 packs.

Product display stand for "Lysol" disinfectant is part of a February advertising media campaign by John & Jack Frost, Inc., New York. Features of display is list of customers made printed on base of display stand. Product display, which includes five goods worth about five per cent, also features 15 glassware bottles on disinfectant stage, with a special section on customer testimonials.

A new liquid vapor, oil-in-water emulsion for treating athlete's foot was announced recently by Mennen Co., Harrison, N. Y. Trade name "Athlecin" 1% fluid ounces of product are packaged in bottles with paddle applicator. Retail price 79 cents.

Product packaged label for open bottle has just been added to line of Whitmore Manufacturing Co., Cleveland. Product packaged in 18 oz. container is designed to act as preservative liquid and not preservative.

Four new aerosol cosmetic products, each fitted with a "Moss-Mist" three phase mechanical breaking valve and actuator made by Riegol Industries, Ltd., British licensee of Stalco Manufacturing Co., Hargreave, Conn., were introduced recently. Metal containers are used for three of the products, one of which (extreme right) is Yardley's "Sunny Mist", two aerosol colognes marketed in England in metal containers. Other products are: 1. "Sooth Tan" sun lotion spray of Cypal Pharmaceuticals, Ltd., Blackburn, Yorkshire; 2. "Styler" hair spray of Stalco, London; and "Coty Mist" cologne spray. Metal Box Co., England, supplied metal containers.

"All", low sudsing detergent of Lever Brothers Co., New York, is now being packaged in plastic film pouch for dispensing from vending machines in self-service laundries. Scientific Packaging Co., Newark, N. J. buys and fills "All" packages for Lever, using "Poly Pouch". Pouches are made, printed and heat-seal coated by Riegol Paper Corp., N.Y.

Cloths for washing or wiping off glass, metal, plastic, tile or ceramic surfaces are now being marketed under the trademark "Permacer 922 Wash 'N Wipe Cloth" by Permacer, New Brunswick, N. J. Cloths, 18 x 24 inches, can be used with soaps, detergents, washing powders and common cleaning agents in hot or cold water. A free counter display is available with any purchase of one case (144 cloths).

cleanest possible washes
in automatics



safe low-suds



TAKE ONE OF THESE HELPFUL NOODLES FROM LYSOL



DEPEND ON YOUR PHARMACIST FOR
THESE MEDICINE CHEST "MUSTS"

- ☐ Rubbing Alcohol
- ☐ Thermometer
- ☐ Cough Preparations
- ☐ Heating Pad
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- ☐ Absorbent Cotton
- ☐ Nose Drops

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A
Complete
Packaging
Service
That Can Mean
Important
Freight Savings
To You...



AEROSOLS...

filled by efficient, accurate, high-speed pressure or cold-filling methods with halocarbon or hydrocarbon propellants (or a combination of both).

LIQUIDS...

filled in metal, glass or plastic in any size from 2-ounce containers to 55-gallon drums.

And when your products must be sent to common destinations in different types of packages, Peterson can do all the filling and, then, combine the various types into dollar-saving single shipments. For complete details, write, wire or phone...

PETERSON
Filling and Packaging Co.
HEGELER LANE • DANVILLE, ILLINOIS



Marking Machine Brochure

An eight page illustrated brochure was recently released by Industrial Marking Equipment Co., Brooklyn N. Y. describing its complete line of marking, dating, coding and imprinting machines. Included in the booklet is information about machines that will imprint any message on any type of package, and machines designed to solve specific marking problems. A copy of the brochure is available from the company, 655 Berriman St., Brooklyn, N. Y.

Folding Cartons Increase

Shipments of folding cartons in 1959 increased in dollar volume to \$944 million from \$909 million registered in 1958, the Folding Paper Box Association of America, Chicago, announced last month. The 1959 total was 2,372,000 tons, compared with 2,314,000 tons in 1958. Dollar volume of shipments during December increased by 4.4 percent over the same month in 1958; tonnage was up 2.2 percent.

New Sealing Process

A new carton sealing process was recently introduced by Packaging Corp. of America, Rittman, O. This new development makes possible the use of single-structure cartons for many types of hydrosopic products including soap powders, and eliminates the need for inner bags and overwraps. Called "Calk-Seal," the new process is claimed to provide low-cost, sift-proof, and infestation-proof carton packaging. It involves ap-

plication of a specially developed hot calking compound under the end flaps of the carton which provides a damage-proof seal of permanently pliable, non-staining material, according to PCA. Full details on the process are available from Dept. MJ of the company's Ohio Boxboard Division.

New Crown District

A new sales region designated as the "South West Region" which includes the states of Colorado, Kansas, Missouri, New Mexico, Oklahoma, Texas and Arkansas, was announced recently by Crown Cork & Seal Co., Philadelphia. Leonard S. Martin has been appointed regional sales manager of this new territory. Eldon E. Blust, formerly sales representative in the St. Louis district, succeeds Mr. Martin as St. Louis district sales manager. Mr. Martin has been with Crown since 1942.

Packaging Show Apr. 4-7

Close to 382 firms are expected to show the latest in packaging machinery, equipment, supplies and services during the 29th National Packaging Exposition in Atlantic City, N. J., April 4-7. Both the show and the concurrent National Packaging Conference, sponsored by the American Management Association, will be held in the Atlantic City Municipal Auditorium. The conference sessions will run the first three days of the show, April 4-6. Theme of this year's conference is "Packaging for Profit."

New Continental Division

A plastic bottle and tube division with headquarters in Chicago has been established by Con-

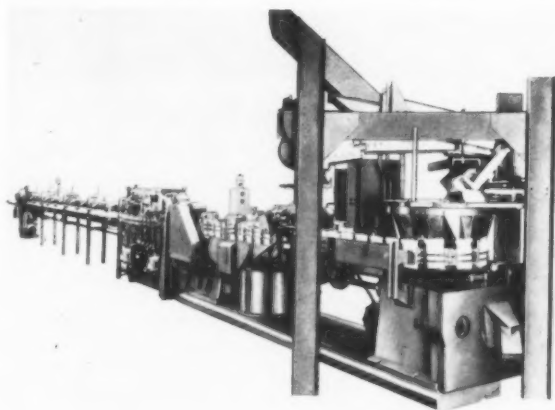


Charles F. Lenhard

tinental Can Co., New York, it was announced last month by William M. Cameron, executive vice-president of the glass and plastics operations group. Charles F. Lenhard, former plant manager of the Chicago plastic bottle plant, has been named manager of the new division in charge of sales, production, and research and development. Previously the paper container division was responsible for the plastic bottle operation in Chicago. Mr. Cameron also announced that the company is planning to establish three additional plastic bottle manufacturing facilities.

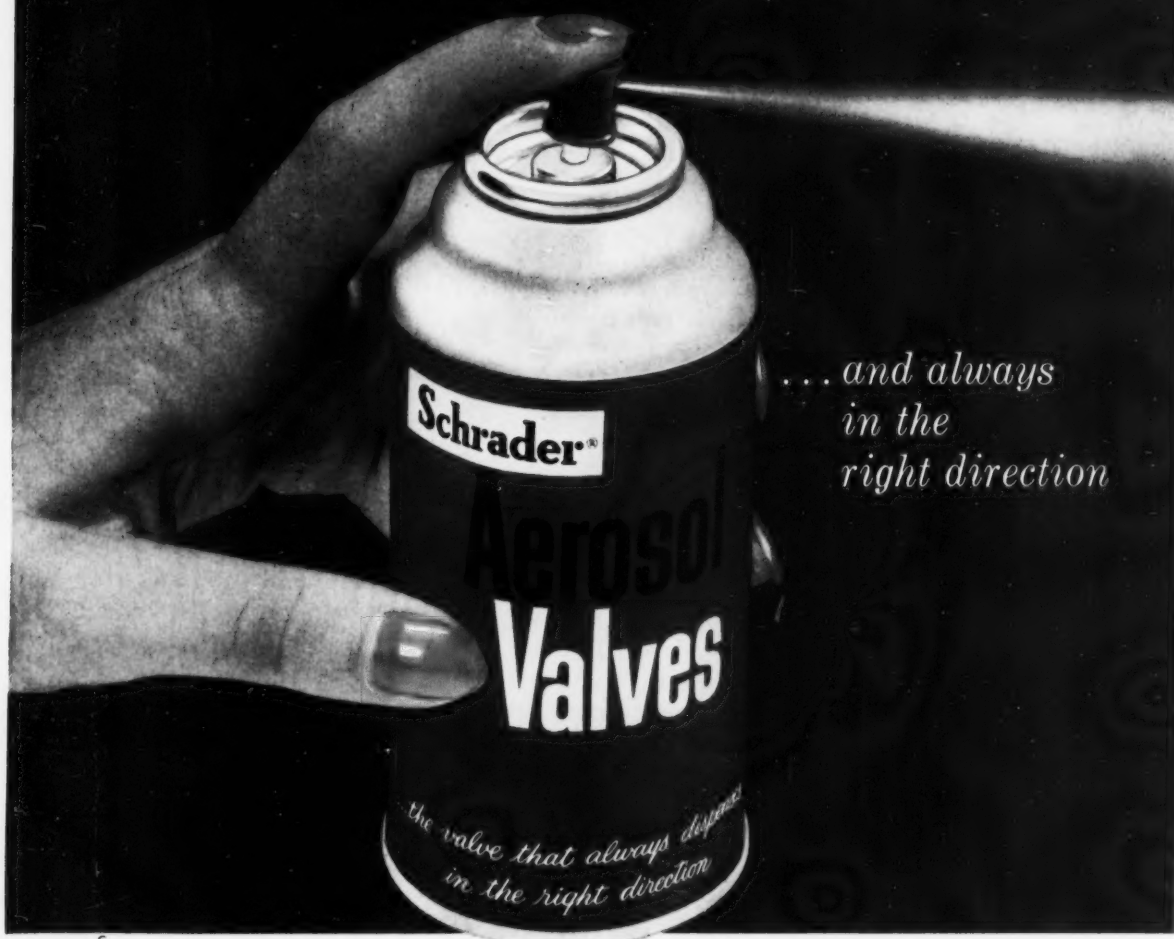
Canco Sales Up, Net Down

Sales of American Can Co., New York, in 1959 were the highest in the company's history, based on a preliminary report released early this month. They totaled \$1,107,361,078, an increase of 6.8 per cent over sales of \$1,037,032,365. Net earnings amounted to \$40,890,769, or \$2.42 per share, compared with \$46,432,856, or \$2.78 per share, in 1958. The decrease in earnings was attributed directly to costs due to the steel strike, estimated at nearly \$15 million, according to a statement by William C. Stolk, president. All of the company's product divisions contributed to the sales increase.



New fully automatic high speed machine of Stokes & Smith, Philadelphia plant of Food Machinery & Chemical Corp., New York, for handling new "Calk-Seal" carton perfected by Packaging Corp. of America. "Neverstop-Calk-Seal" machine is completely integrated operation. At speeds of up to 300 per minute, cartons are snapped open, bottom sealed, accurately filled and top sealed.

NOW...
A DIFFERENT
VALVE
THAT DISPENSES
AT A FEATHER TOUCH



... and always
in the
right direction

The Schrader Engineering and Laboratory Staffs are ready to design the valve that will dispense your product efficiently and dependably, regardless of rate and size of spray, spray material, propellant, etc. Schrader can help you by quantitative and qualitative analysis of your product. Our modern laboratory equipment is at your disposal upon request.

Schrader
a division of SCOVILL

**Aerosol
Valves**

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Inc.
470 Vanderbilt Avenue, Brooklyn 38, N. Y.

NEW Trade Marks

THE following trade marks were published in recent issues of the *Official Gazette* of the U. S. Patent Office in compliance with section 12 (a) of the Trade Mark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the *Gazette*. See rules 20.1 to 20.5. As provided by section 31 of the Act, a fee of \$25 must accompany each notice of opposition.

Dibrom—This for insecticidal preparation. Filed Sept. 22, 1958 by California Spray-Chemical Corp., Richmond, Calif. Claims use since Aug. 4, 1958.

E-Z Suds—This for liquid detergent for household use. Filed Oct. 10, 1956 by East Coast Soap Corp., Brooklyn, N. Y. Claims use since Sept. 1, 1951.

Wash-up—This for chemically treated tissues for cleaning the face and hands. Filed Mar. 4, 1959 by Lensclean, Inc., New York. Claims use since Aug. 15, 1958.

Burberrys—This for bath and shower soap. Filed June 12, 1959 by Burberrys Limited, Haymarket, London, England. Claims use since about Apr. 22, 1959 and in commerce since June 5, 1959.

Tred On—This for self polishing floor wax. Filed July 20, 1959 by Demert & Dougherty, Inc., Chicago. Claims use since on or about May 28, 1959.

Anco—This for car wash and wax. Filed July 27, 1959 by Anderson Co., Gary, Ind. Claims use since Apr. 7, 1959.

Deotex—This for deodorant for clothing. Filed Dec. 26, 1957 by Upjohn Co., Dover, Del., assignee of Upjohn Co., Kalamazoo, Mich. Claims use since Sept. 20, 1957.

Colorx—This for industrial starch. Filed Jan. 13, 1958 by A. E. Staley Manufacturing Co., Decatur, Ill. Claims use since Dec. 30, 1957.

Roach Diner—This for insecticides. Filed Dec. 31, 1958 by Sterling Co., St. Louis, Mo. Claims use since Dec. 17, 1958.

Lawn Craft—This for insecticides and fungicides. Filed May 4, 1959 by Hubbard-Hall Chemical Co., Waterbury, Conn. Claims use since Apr. 14, 1959.

Old Scratch—This for insecticides. Filed May 13, 1959 by Old Scratch, Inc., Amarillo, Tex. Claims use since Apr. 27, 1959.

Cyncal—This for sanitizing agent-germicide. Filed May 27, 1959 by Sterwin Chemicals, Inc., New York. Claims use since Apr. 30, 1959.

This-Tle—This for self-polishing floor waxes. Filed July 2, 1958 by

Rhodes Paper Co., Philadelphia, Pa. Claims use since Sept. 15, 1956.

Royaltone—This for clearing and polishing compound for automotive vehicles. Filed Jan. 5, 1959 by Royaltone Products Corp., Brooklyn, N. Y. Claims use since June 3, 1955.

Pool-818—This for sanitizers for pools. Filed May 28, 1958 by P. D. Co., Union, N. J. Claims use since Jan. 24, 1958.

Wipe Away—This for cleaning preparations for use on kitchen equipment and appliances. Filed Mar. 3, 1958 by Beam Chemical Co., Oconto Falls, Wis. Claims use since Jan. 28, 1958.

Bonewitz—This for detergents—namely, dairy cleaning compounds, milkstone remover preparations, metal cleaners, acid, alkaline and neutral cleaning compounds for all purposes. Filed Mar. 10, 1958 by Bonewitz Chemicals, Inc., Burlington, Ia. Claims use since May 15, 1956.

Stain-Go—This for cleanser in powder form for removing stains from plastic dinnerware. Filed June 17, 1958 by Nemir Industries, Inc., Washington, D. C. Claims use since June 4, 1958.

Green Cross—This for liquid soap having deodorant properties. Filed June 25, 1958 by Harold B. Shapira, doing business as Halsh Co., St. Paul, Minn. Claims use since June 12, 1958.

X-L—This for shampoo for upholstery and rugs. Filed Aug. 4, 1958 by Charles Parker, doing business as X-L Cleaning Products Co., New York. Claims use since April 1951.

Tempo—This for cleaner for upholstery, fabric, rugs, leather, and plastics, and a degreasing material, packaged in spray-type containers. Filed Aug. 7, 1958 by Tempo Products Co., Cleveland. Claims use since Nov. 12, 1956.

Wipe Away—This for cleaner for floors and other surfaces in liquid and powdered form. Filed Sept. 22, 1959 by James Austin Co., Mars, Pa. Claims use since May 15, 1951.

Salesmen Who Work

(From Page 114)

What was the result? He's less than five feet tall and weighs two hundred pounds; the blonde was five feet eight and weighed a hundred and thirty. The picture makes him look ridiculous and irritates his wife. And he has not sold a single can of that very special deal.

Who wins in this kind of

deal? No matter how many cases you load on the retailer, you have not sold it until he has moved it off his shelves.

Your dealer needs education in marketing. He needs to be taught how to make every one of your packages important—pardon me, *indispensable*—to every customer he serves.

This gives you a great marketing opportunity. The soap people keep making news for both the retailer and the consumer by giving their packages new dresses—new package designs—every few months. Maybe you cannot afford to do it that often. But every time you design a new package, make it headline news for every salesman, jobber, retailer and consumer you hope to sell. Educate everybody involved to the advantages of your new package—its more convenient size, its improved product, its new features, its new design.

Even if all you do is to change the package design to make it sell better and faster, promote it by letting everybody know it. Only be sure you make a special occasion of it, a bang-up coming out party.

And keep hammering away at its importance until everybody, down to the last retailer and the last consumer, begins talking about your product as if it were as important to them as it is to you, until you hear retailers and consumers sell it to each other and back to you as hard as you sell it to them.

When this begins to happen, you will know that a salesman who works for nothing—your new package—is a star performer ★★

★

Can Shipments Rise

Total metal can shipments for the first nine months of 1959 totaled 3.9 million tons, an increase of 6.5 percent over the same period in 1958, it was reported recently by Can Manufacturers Institute, Washington, D. C. An 11 per cent increase was recorded for all other non-food products.

**Want to pack
hard-to-hold
high-pressure
products?**



*or fragile
but corrosive ones?*

Count on Crown Spra-Tainers

Hard-to-hold high-pressure products like propane gas are safely packed in seamless 12-ounce Spra-Tainers. Fragile pharmaceuticals and fragrant cosmetics, containing corrosive ingredients, require the perfect corrosion-resistant internal coating of the Crown Spra-Tainer. Your aerosol product—whatever it may be—deserves a Crown container. Crown—pioneer and largest producer of aerosol cans, will be glad to help you. May we discuss aerosol packing with you?



CROWN

for cans • crowns • closures • machinery



CROWN CORK & SEAL COMPANY, INC., 9300 Ashton Road, Philadelphia 36, Pa.

PRESSURE PACKAGING

Ferry Joins Schrader

Royal T. Ferry, Jr., was appointed chief engineer of aerosol products last month for A. Schra-



Royal T. Ferry, Jr.

der's Son, Brooklyn, N. Y., division of Scovill Manufacturing Co., New York. He is in charge of the firm's accelerated engineering activities in the aerosol field. Mr. Ferry has had experience in all phases of aerosol valve research, development, and production. Joining the aerosol division of Bridgeport Brass Co., Bridgeport, Conn., in 1959, he later went with Valve Corp. of America in Bridgeport as chief engineer. Most recently, Mr. Ferry was with Kartridg-Pak Machine Co., Chicago.

Puritan Under New Mgt.

Abe Winer, sole owner and president of Puritan Distributing Co., Boston, Mass., contract aerosol filler, recently sold his interest in the company to a group of stockholders headed by Harvey White, who now is president of the firm. Mr. Winer continues with Puritan in a general management capacity. He formed the company in 1946 and four years later established its aerosol filling division which took over the major part of

Puritan's operation. At that time, Mr. Winer reports, his company was the eighth filling firm in existence in the world.

The new management, according to Mr. White, has extensive plans for expansion of the company particularly in its research and development department. Addition of personnel and new equipment to the firm is contemplated to provide complete service to its customers including packaging and marketing advice, and development of new products, he said. Puritan is engaged in all phases of aerosol filling except food, and specializes in products for the chemical specialties, cosmetic, and pharmaceutical industries. A contract loader, it does not market any products under its own name.

Snyder Elects a Director

S. David Harrison, treasurer since 1956 of Snyder Corp., Detroit, was elected a director of the company last month. Snyder is the parent firm of Arthur Colton Co., Detroit manufacturer of aerosol filling and packaging machinery and production filling and tabletting equipment for the chemical and pharmaceutical industries. Mr. Harrison joined Snyder in 1945 as assistant comptroller and became assistant treasurer in 1952. The parent firm makes special machine tools and automated machinery for metalworking plants.

Predicts Aerosol Can Rise

Aerosol containers and plastic bottles were two of several packaging items, which Raymond G. Fisher, vice-president of marketing for Continental Can Co., New York, recently predicted will grow most rapidly in 1960. King-size packages will continue to supplant smaller sizes, he stated, and retail

sales of non-durable packaged goods probably will increase by five per cent this year. Industrial use of packaging materials, such as fibre drums and multi-wall bags, is gaining even more rapidly, Mr. Fisher noted.

New Oil Equipment V.P.

Richard M. Monahan has been elected vice-president of Oil



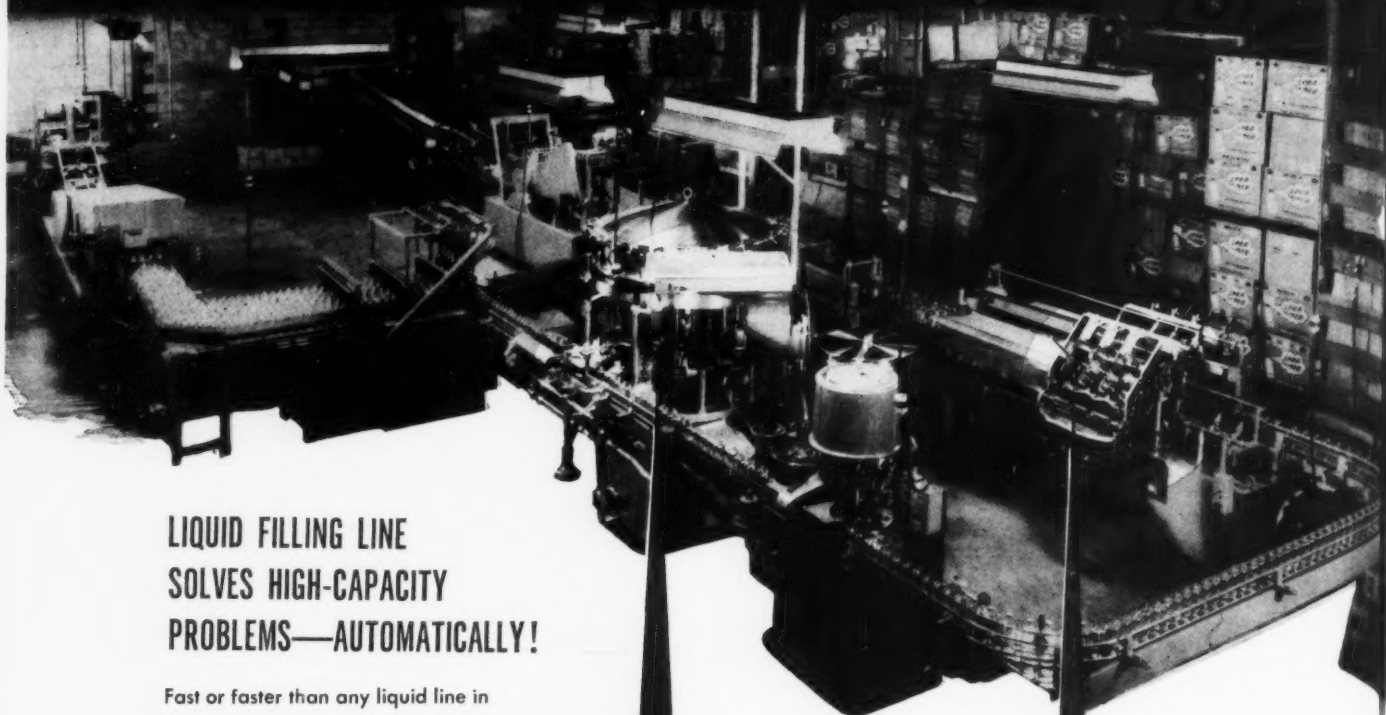
Richard M. Monahan

Equipment Laboratories, Inc., Elizabeth, N. J., manufacturer of aerosol valves, it was announced last month by John M. Wittke, president. In his new post, Mr. Monahan is responsible for sales and product development. He was formerly vice-president of Newark Paper Box Co., Newark, N. J., and has had experience in package design and sales and in can manufacturing, plastic molding, and paper box industries.

Expands "Frigen" Plant

Farbwerke Hoechst AG., Frankfurt-Hoechst, West Germany, recently expanded its plant for the production of "Frigen" propellant and refrigerant. The firm is a leading producer in Europe of fluorinated hydrocarbons. Of steel skeleton construction and covering an area of nearly 12,000 square feet, the new installation is five stories high and is unenclosed except for areas housing compressors, instruments, controls, and a stairway.

now we can fill **15,000 BOTTLES** of **YOUR PRODUCT** every hour...

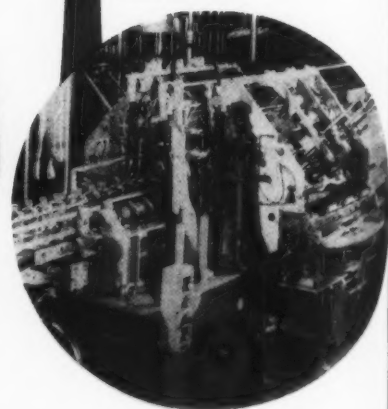


LIQUID FILLING LINE SOLVES HIGH-CAPACITY PROBLEMS—AUTOMATICALLY!

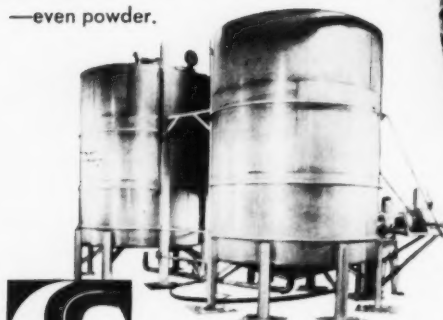
Fast or faster than any liquid line in the country! Empties are unpacked, purged, filled, capped, labeled, and delivered to trailers in sealed cartons—in one continuous operation. Handles any bottle up to 1 gallon, including high-density polyethylene. Call or write today for details about Stalfort, the nation's largest aerosol loader and custom filler of conventional packages. Also, a high speed sanitary line for food or pharmaceuticals—even powder.

NO IMPURITIES! Vacuum-cleaned bottles speed through rotary filler and capper.

NO OFF-CENTER LABELS! Any size or shape labels placed front and back by electronic timer.



NO "DOWN" TIME! Sanitary storage tanks hold up to 15,000 gallons for continuing operation.



JOHN C. STALFORT AND SONS, INC.

321 WEST PRATT STREET, BALTIMORE 1, MARYLAND

More Aerosols to Use New Gulf Valve

THE "Gulf SA" ("Sprays Anyway") aerosol valve, which is operative even when the container is held upside down, will be adopted for a number of other pressure packaged insecticides marketed by Gulf Oil Corp., Pittsburgh, it was learned recently. The valve is now being used on new "Gulf Ant Roach" aerosol containers.

Use of the valve is not expected to be confined to insecticides, however, and Seaquist Manufacturing Corp., Cary, Ill., producing the valve under a license from Gulf, is expected to begin production soon on similar valves for use on such pressure packaged products as hair sprays, insect repellents, furniture polishes, deodorants, paints, foot sprays, suntan lotions, pharmaceuticals, etc.

The new Gulf aerosol valve designs were developed in the entomology laboratory of Gulf Research Center, Hamarville, Pa. A. J. Samuel, senior technician, entomology section, Gulf Research & Development Co.; J. M. Fulton, a member of the liaison group, Gulf Oil Corp., patent department; and A. C. Miller, section head, entomology section, Gulf Research and Development Corp., were co-inventors of the aerosol valve that func-

tions regardless of the position in which the container is held.

Gulf, which now owns broad patents covering the use of this type valve in the U. S., has been granted or has applied for similar patents in 22 countries. Rather than engage in valve manufacture, Gulf is licensing the patents to valve manufacturers. Licensing agreements have already been signed with Seaquist, which is now producing one type of "Gulf SA" valve. In a particular valve made by Seaquist, the basic valve, which is of the conventional Sequist "Sea-Spray" type, has been modified by incorporating the "Gulf SA" valve improvement to give the new "spray anyway" effect. The "Gulf SA" valve can be adapted to, and used in combination with, other types of conventional aerosol valves. The Gulf invention consists essentially in providing a by-pass to the dip tube when the can is inverted. (See cut) With this valve, any pressure package in an upright position operates exactly as any regular "upright type" aerosol. The by-pass is closed, preventing loss of gas, and the liquid is forced by gas pressure up the dip tube and into the air. But when the container is turned over the

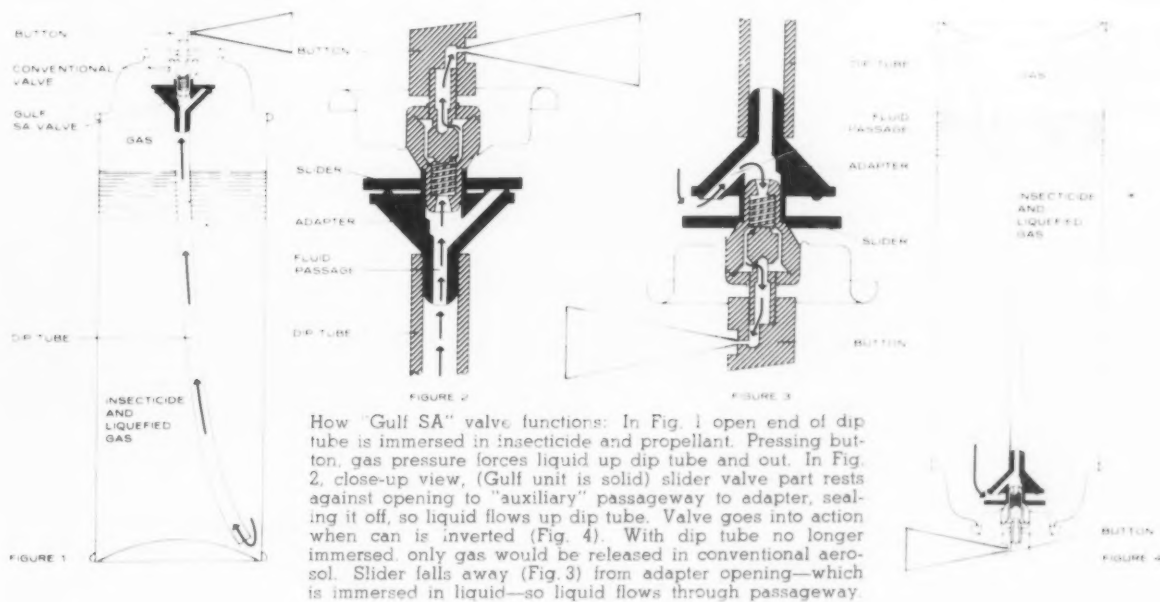
by-pass valve opens and converts the package into an "inverted-type" aerosol. The liquid no longer has to travel through the dip tube, but can move out through the new opening. Right side up or upside down, the product continues to flow as long as the actuator button is pressed.

E. Howard Kester Dies

E. Howard Kester, regional sales manager in Pennsylvania and southern New Jersey for John C. Stallort & Sons Co., Baltimore, Md., died suddenly at his home in Glenside, Pa., Jan. 20. Well-known in the aerosol and chemical specialties industries, Mr. Kester was a co-founder and vice-president of Krylon, Inc., Norristown, Pa., before joining the Stallort sales staff. He was regional sales manager for the past five years.

Odell Associates Move

Norman Odell Associates, New York public relations firm handling the publicity and promotion activities of the Aerosol Division of the Chemical Specialties Manufacturers Assn., has just moved its offices to suite 809, (Chain Building) 122 E. 42nd St., New York 17, N. Y. New telephone number is Yukon 6-1560.



How "Gulf SA" valve functions: In Fig. 1 open end of dip tube is immersed in insecticide and propellant. Pressing button, gas pressure forces liquid up dip tube and out. In Fig. 2, close-up view, (Gulf unit is solid) slider valve part rests against opening to "auxiliary" passageway to adapter, sealing it off, so liquid flows up dip tube. Valve goes into action when can is inverted (Fig. 4). With dip tube no longer immersed, only gas would be released in conventional aerosol. Slider falls away (Fig. 3) from adapter opening—which is immersed in liquid—so liquid flows through passageway.

Ucon brand
propellants
put action
in products



*Why don't you discover
Ucon Propellant service, too?*

UNION CARBIDE CHEMICALS COMPANY
Division of Union Carbide Corporation • 30 East 42nd Street, New York 17, N. Y.

Ucon and UNION CARBIDE are registered trade marks of Union Carbide Corporation

Aerosol Sales Potential

By **Ralph A. Crane,***

Market Research Manager,
"Freon" Products Division
E. I. du Pont de Nemours & Co.

Part II

WHAT aerosol packaging does for a product if the aerosol is practical, has utility and is widely distributed and promoted is shown in Table III. Shown are sales growth, actual and forecast, of aerosol insecticides and the resultant growth of the total market.

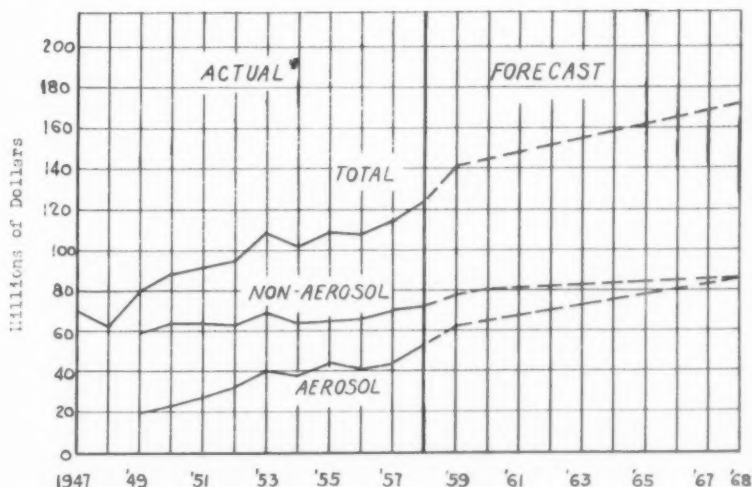
When we superimpose our forecast sales of aerosol insecticides on the total dollar market, aerosol sales as a per cent of total sales increases from 42 per cent in 1958 to 50 per cent in 1968. An increase in production is forecast from 71 million aerosol units to 107 million units in 1968.

Room deodorants are another example of aerosol sales having increased the total market while at the same time accounting for an increasing portion of the market. (Table IV.) In 1958 aerosol room deodorants accounted for 77 per cent of the total dollar market and about 63 million units were produced. A growing number of consumers are finding out that aerosol room deodorants obtain quicker results because they permit much faster and more even application of deodorant to odor sources or to odorous spaces. This forecast predicts that in 1968, 113 million units will be produced and the total dollar market penetration of aerosol room deodorants will be about 85 per cent.

*Paper presented at 46th annual meeting, Chemical Specialties Manufacturers Assn., Washington, D. C., Dec. 8, 1959, by A. H. Lawrence, Jr., whose name appeared as author for Part I of the article, published in the January issue of *Soap and Chemical Specialties*.

Table III.

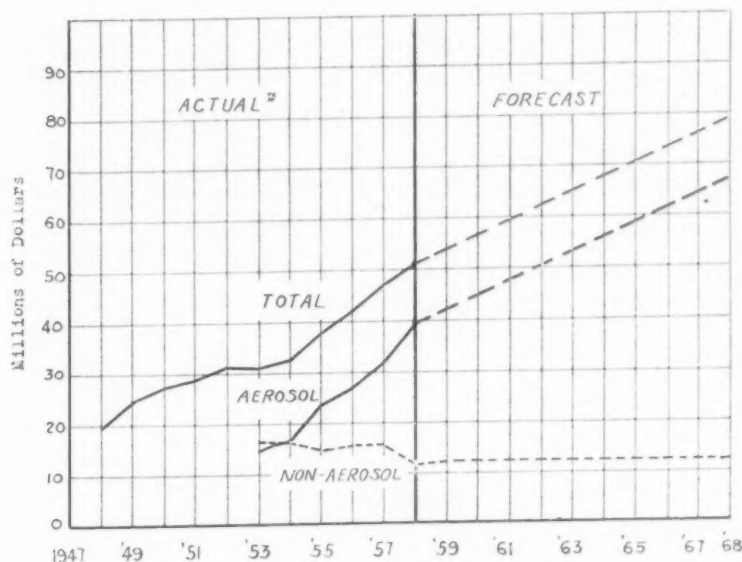
TOTAL DOLLAR MARKET - INSECTICIDES - ALL TYPES



* SOURCE: "FOOD TOPICS" CONSUMER REPORT

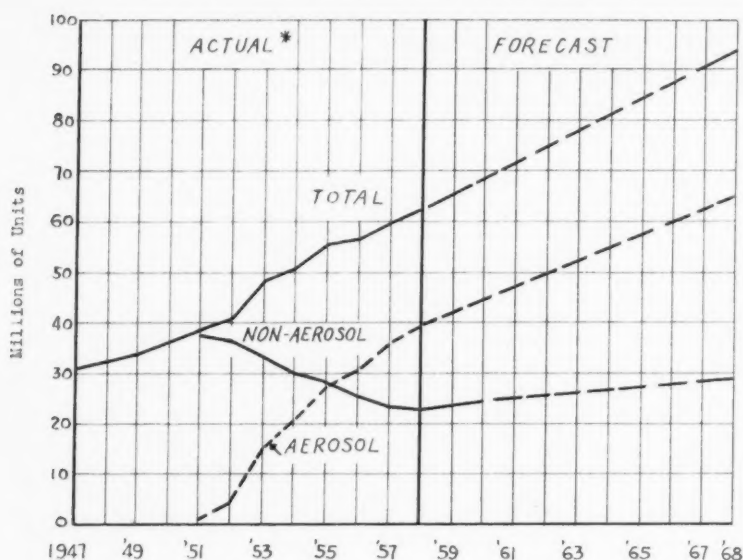
Table IV.

TOTAL DOLLAR MARKET - ROOM DEODORANTS - ALL TYPES



* SOURCE: "FOOD TOPICS" CONSUMER REPORT

TOTAL DOLLAR MARKET - SHAVE CREAM - ALL TYPES



* SOURCE: "DRUG TOPICS" CONSUMER REPORT

Table V.

We shall now examine the total market potential for a personal product, shave cream. (Table V.)

Total shave cream sales have continued to grow despite electric shaver competition. That this growth is due to aerosol shave lather is apparent. Since the introduction of Carter Products' "Rise" in 1950, aerosol packages have captured 63 per cent of the shave cream market. About 65 million aerosol units were produced in 1958. Production should be nearly 100 million aerosol units in 1968, and our forecasters say that the aerosol share of the market should increase to nearly 70 per cent.

Relative Average Usage

Finally, in considering the potential for the principal nonfood aerosols, we have calculated their relative average usage, as shown on page 136.

In using the word "relative," we assume that each household, or each woman or man over 17, according to the product, is using and will be using the par-

(Turn to Page 136)

STROUSE INC.

ONE OF THE NATION'S FASTEST-GROWING CONTRACT FILLERS OF AEROSOL PRODUCTS

Strouse know-how and facilities (2 plants, 4 modern production lines) can handle any size order—but "we'll always be small enough to offer the personalized service and care which insures **QUALITY** for your product."

**SEND FOR
ILLUSTRATED
BROCHURE
OF OUR
FACILITIES**

STROUSE INC. • Basin and Cherry Streets, Norristown, Pennsylvania





THE QWIP THAT TOPPED THEM ALL!

CONGRATULATIONS TO QWIP! In the 1959 Aerosol Packaging Awards Competition—Sponsored by the Chemical Specialties Manufacturers Association—this container for Qwip Dessert Topping won the Grand Award and top honors in the food products division. The Qwip container was manufactured by Canco for the Avocet Co.

The prize-winning Qwip container is one more example of the way Canco cans and Canco creative lithography combine to produce packages with exceptional eye and sales appeal.

At Canco, you'll find the container that's right for your product, and lithographers with the skill, facilities and experience to make your package the stand-out in its field.

Canco containers make good products sell better!



AMERICAN CAN COMPANY

NEW YORK • CHICAGO • NEW ORLEANS • SAN FRANCISCO

**APPLY MORE THAN
100 AEROSOL VALVES PER MINUTE
WITH THE CAPEM H-O-FV**

If applying aerosol valves is a bottleneck in your packaging operation, here is your solution—the CAPEM H-O-FV.

Rich Products Corp., Buffalo, N. Y., manufacturers and distributors of Rich's "Whip Topping", recently installed one of these machines. Production has increased and results have been most satisfactory since installing the H-O-FV on their aerosol container line.

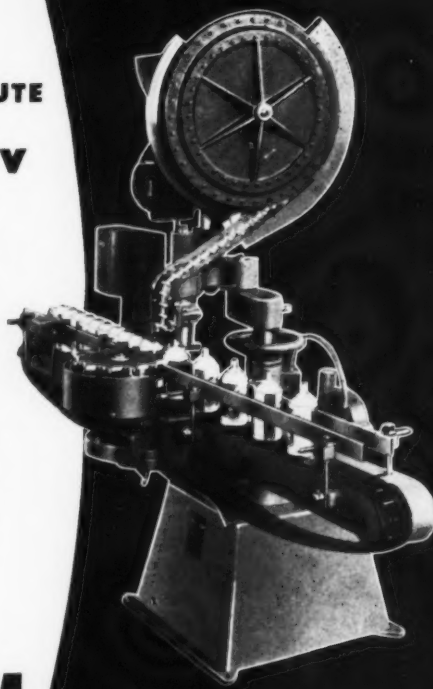
The Model H-O-FV sorts and applies aerosol valves to whipped cream containers at speeds in excess of 100 per minute. Stainless steel and chrome-plated parts are used whenever necessary to comply with dairy industry regulations. Electric switch gear is mounted conveniently above conveyor to facilitate washing the line at shut-down time.

Changeover from one container size to another is simple and easy.

For complete information on the CAPEM H-O-FV and other Consolidated packaging machinery, write Sales Manager, Consolidated Packaging Machinery Corp., 1400 West Avenue, Buffalo 13, N. Y. A Subsidiary of International Paper Company.

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THE MODERN SCREW CAPPER



**PRIVATE
FORMULA
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**let us
manufacture
it for you**

call on Gesell . . . for economical, dependable and confidential manufacturing of special items which do not fit into your setup. our complete service from product development to finish includes: manufacturing, filling, warehousing, packaging, storing and shipping—over 35 years in business . . . you can depend on Gesell to give you quality workmanship and prompt service due to the most modern and efficient production facilities. consult us without obligation

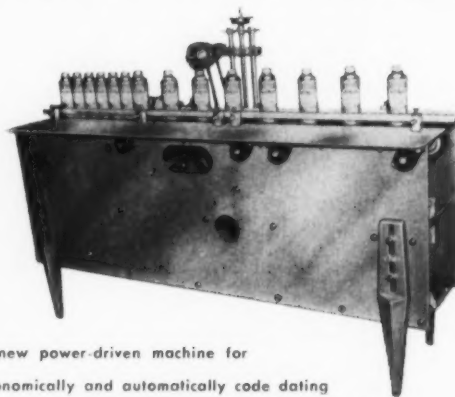


R. Gesell Incorporated

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Aerosol Container

CODE DATING MACHINE



a new power-driven machine for economically and automatically code dating the concave bottoms of pressurized cans or flat bottoms of other round containers with work table area. Will mark top, bottom, both at the same time, or around the circumference.

SEND DETAILS ON YOUR SPECIFIC MARKING PROBLEMS. LITERATURE AVAILABLE ON ALL TYPES OF APPLICATIONS.

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METERED SPRAY AEROSOL SPECIALISTS

Exclusive, specially designed equipment for fast production of all metered dispensers.

RESEARCH to develop the right product

QUALITY CONTROL to make the package market able

PRODUCTION to handle small and large volume of all type Aerosol products

Make it a point to talk to "AERO-CHEM" first

quality AEROSOL PACKAGING service.

AERO-CHEM fillers, inc.

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**AEROSOL TECHNIQUES
INCORPORATED**

Exclusively private label manufacturer of aerosol cosmetics, pharmaceuticals and chemical specialties.

Bridgeport 5, Conn.

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SINCE 1946

FLORIDAS' OLDEST CONTRACT PACKAGER

Your product can be packaged in America's fastest growing market AT NO COST TO YOU. The freight saved usually pays the bill. COMPLETE FACILITIES FOR MANUFACTURING, PACKAGING, STORING, AND SHIPPING LIQUIDS, POWDERS, CREAMS.

LONG OR SHORT RUNS

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plants to
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Enjoy the advantage of G. Barr & Company multiple plant operation and packaging know-how. Unsurpassed research, production and shipping facilities. No finer service available. Contact our nearest plant.

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**Relative Average
Usage**

1958 1968

Household products

Insecticides (per household)	1.4	1.9
Room deodorant (per household)	1.3	2.0
Coatings (per household)	1.0	1.9

Personal products

Hair spray (per woman over 17)	1.9	3.0
Shave cream (per man over 17)	1.1	1.5
Cologne (per woman over 17)	0.5	1.0
Dental cream (per household)	0.5	1.1

ticular aerosol. We also assume in
this calculation that all of these
products were used in homes. Of
course, we know that they are also

purchased in commercial and in-
dustrial establishments. However,
based on these assumptions, we
see that each household used 1.4
cans of aerosol insecticides in 1958.
If our forecast is fulfilled, the
relative average usage will be 1.9
cans per household in 1968. Cer-
tainly this is a reasonable goal.

Actual penetration, of
course, is not this high. One of
the most significant findings of
our 1958 National Survey is the
widespread acceptance of nonfood
aerosols. Eighty-one per cent of

households covered by the study
bought one or more products in
aerosol form during the six months
preceding the survey. Analysis of
survey results shows that consid-
ering age, family income, educa-
tion, geographic region, and place
of residence, there is notable con-
sistency in purchasing patterns.
The weak spots in acceptance ap-
pear to be primarily among lower
income families, among the less
educated and in the South. Even
so, the degree of acceptance for
aerosols among the groups where
purchasing is lowest is still of such
a magnitude that it is clear that
the opportunity is here for the
broadest possible marketing of
aerosol products.

Food Aerosol Potential

Market researchers are still
actively at work measuring the po-
tential of the food aerosol market.
As you know, the first pressurized
food product was an aerated whip-
ped cream, introduced in 1949,
30 million units of which were
sold in a year. Production has
since grown to an estimated out-
put, along with other whipped
toppings, of 80 million cans in
1958.

Until recently, whipped top-
pings were the only successful
pressurized food products. In 1956,
a pressurized soft-drink syrup had
a limited success. In 1957, a spray-
type barbecue sauce was marketed.
"Tasti Cup Instant," the first
pressurized coffee package, was
developed in 1958. We believe
that many other new pressurized
food products will be launched



For those interested in
Carbon Dioxide Propelling of products
from a pressurized can, we offer

**SNOW-MAN
DRY ICE MAKER**

with adapter for making pellets 1/2"
diameter x 3/8" long.

Two of these pellets in an empty 6 oz. can will create a
pressure of approximately 80 lbs. Two of these pellets in
a similar can half filled with water will create the same
pressure due to the water absorbing some of the CO2.
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most valuable aid.

The SNOW-MAN may also be used to produce dry ice with
Aerosol cold filling. The dry ice is used in conjunction with
coils of copper tube cooling the aerosol propellants well be-
low their boiling point so they can be handled in open
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FOOD AEROSOL PRODUCTION

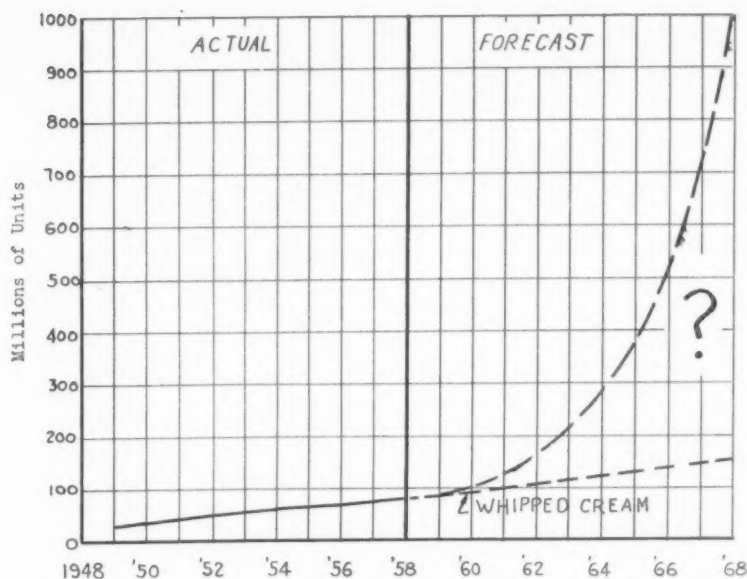


Table VI.

within the next few years, but we cannot yet measure the potential, as evidenced by the question mark in Table VI.

Despite the advances gained to date by pressurized food products, there are still many formidable problems of food preservation,

purity and sanitation. The success of pressure-packed whipped cream, however, indicates that the problems are not insurmountable. We are confident that our newly developed "Freon-C318" propellant, which is odorless, tasteless and chemically stable will help the aerosol food market grow. Tests to date indicate no toxicological problems arising from use of "Freon-C318," and the du Pont Company anticipates Food and Drug Administration approval this year.

Conclusion

1. The outlook for aerosols is bright. Production and sales should reach at least one billion nonfood aerosol units per year by 1968, doubling the present rate.

2. The production of a few products, seven in 1968, will continue to account for at least three-quarters of the total production of nonfood aerosols. Hopefully, new products will be developed to
(Turn to Page 194)

Book on Aerosols . . .

"PRESSURIZED PACKAGING" (AEROSOLS)

By A. HERZKA AND J. PICKTHALL

19 Chapters . . . 411 Pages

Contains chapters covering propellants, filling techniques, laboratory testing, dispenser components, and 13 chapters on formulation of cosmetics, perfumes, foods, hair preparations, foam preparations, insecticides, space deodorants, medicinal preparations, paints, varnishes and removers, fire extinguishers, and a general formulary of aerosol products. Profusely illustrated. Index of aerosol trade names and glossary of terms. Compiled by two outstanding British authorities. The first complete work on aerosols yet to be published.

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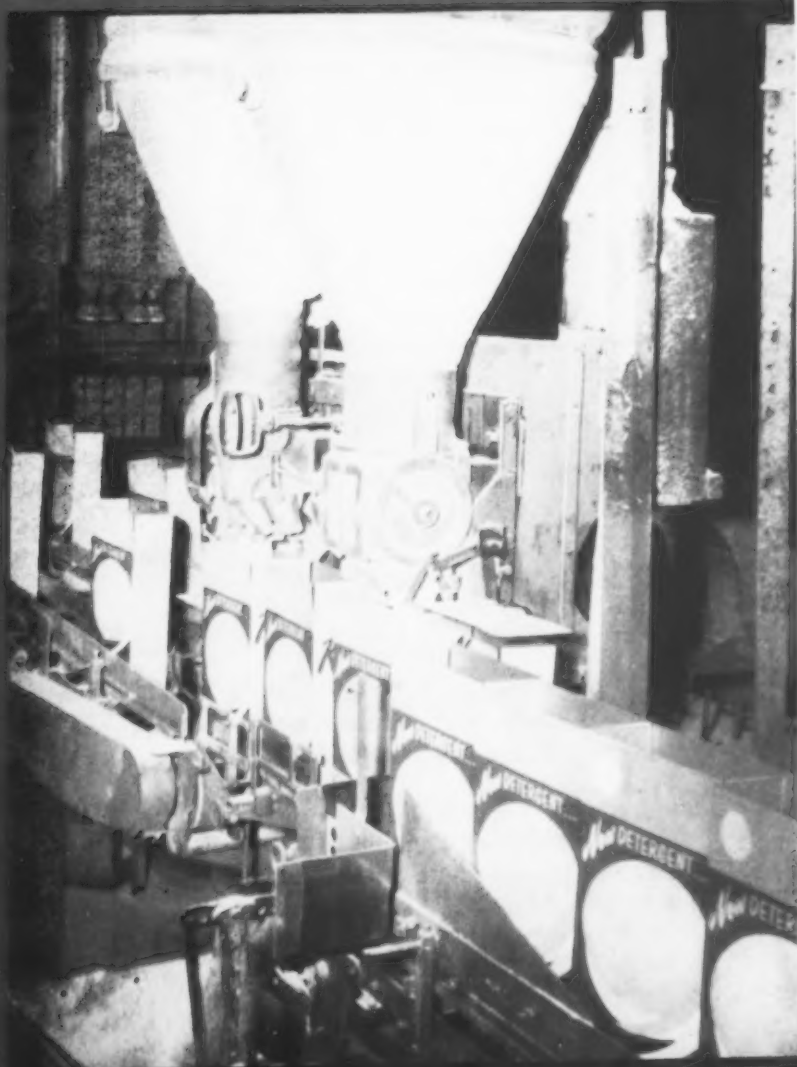
"Fat Derivatives in Toiletries"

New Patents

Soap Plant Observer

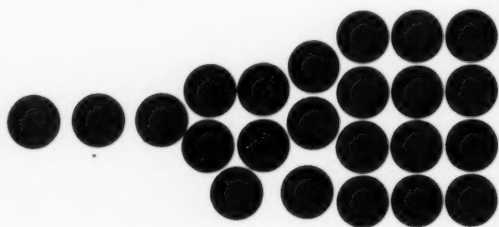
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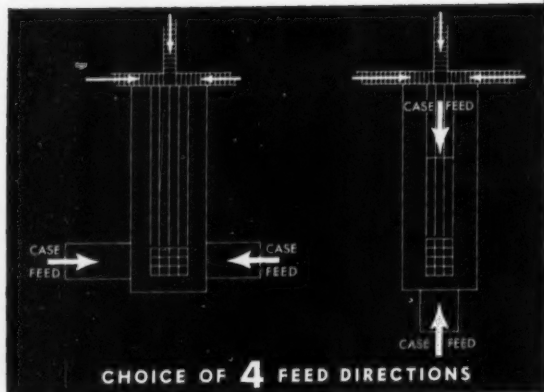
Loading capacity is 20-30 cases per minute, depending upon case and product. At 30 cases per minute, speed is 40% higher than previous models, provided by a machine that takes 27% less space. Write for folder.



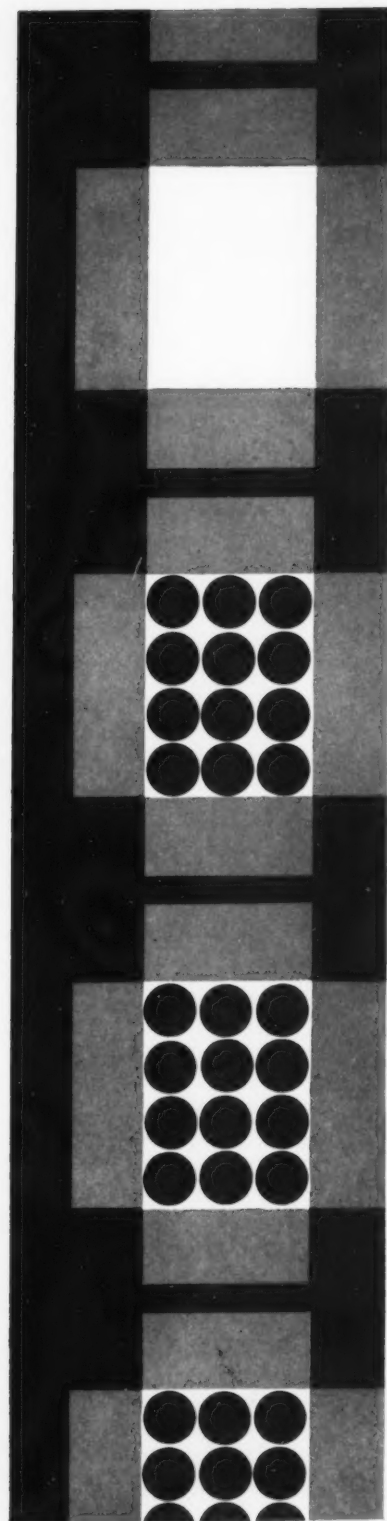
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Standard-Knapp Packaging Equipment



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SOAP and CHEMICAL SPECIALTIES

Fat Derivatives in Toiletries

By Gabriel Barnett*

Coty, Inc.
New York

RAW materials derived from animal and vegetable fats, oils, and waxes constitute an ever-increasing portion of modern toiletries formulations. The great variety and novelty of present-day specialties has been made possible only because of the ready availability of these naturally-occurring esters, and the ingenuity of the chemical industry utilizing highly specialized techniques such as:

1. Fractional distillation
2. Solvent crystallization
3. Ozonolysis
4. Hydrogenation
5. Oxidation
6. Ethoxylation
7. Molecular distillation

Completely new approaches to toiletries formulation have resulted from the abundant flow of fat-derived chemicals, which in turn have been used for further synthesis of newer raw materials.

Practically every cosmetic and toiletry product—shampoo, dentifrice, cream, lotion, powder, lipstick, make-up, hair dressing, creme rinse, cologne and deodorant sticks, shaving cream, antiperspirant, para hair dyes—has one or more components which were derived from a naturally-occurring fat, oil, or wax. The almost complete dependence of most cosmetics on these raw materials becomes strikingly evident when one attempts to list products not containing fat-derived products.

Fat derived materials are equally varied in their properties and functions. They serve as detergents, emollients, thickeners,

plasticizers, solvents, emulsifiers, wetting agents, dispersing agents, suspending agents, and solubilizers. Many surface-active agents have emollient properties and are most versatile in their wide range of hydrophilic-lipophilic characteristics. The relative occlusive or barrier effect of oil and wax films on the skin may be modified by the use of the various surface-active agents.

These naturally-occurring fats and oils offer one of the largest potential sources of raw materials for the preparation of chemical synthetics. The cosmetic materials derived from fats and oils are given below according to their chemical types, together with important examples for each classification:

1. Triglyceride esters—castor, sesame, peanut, safflower, soybean, coconut oils and tallow;
2. Fatty acids—lauric, palmitic, myristic, stearic, oleic, linoleic, ricinoleic, hydroxystearic, arachidic, behenic, and arachidonic acids;
3. Fatty alcohols—lauryl, cetyl, stearyl, oleyl, tallow, ricinoleyl, and lanolin alcohols;
4. Soaps—sodium, potassium, ammonium, mono-, di-, and triethanolamine, mono-, di-, and tri-isopropanolamine,

and amino glycol salts and fatty acids;

5. Detergents—
 - a. Alkyl sulfates from coconut oil fatty acids
 - b. Amide sulfonates
 - c. Ester sulfonates
 - d. N-acyl sarcosinates
 - e. Alkylolamides
 - f. Amines
 - g. Alkyl beta-amino propionates;
6. Cationic antiseptics—
 - a. Quaternary ammonium compounds
 - b. Morpholinium compounds
 - c. Pyridinium compounds;
7. Alkyl fatty acid esters—
isopropyl and butyl myristate, palmitate, stearate, oleate, and linoleate;
8. Polyhydric alcohol esters—
propylene glycol, glyceryl, sorbitol, and sorbitan fatty acid esters;
9. Ethoxylated fatty acids—
polyethylene glycol mono- and di-fatty acid esters;
10. Ethoxylated fatty alcohols—
polyethylene glycol esters of cetyl, stearyl, oleyl, and lanolin alcohols;
11. Ethoxylated sorbitan esters—
"Tweens" (Atlas Powder Co.);
12. Branched-chain high molecular weight alkyl esters—
hexadecyl myristate

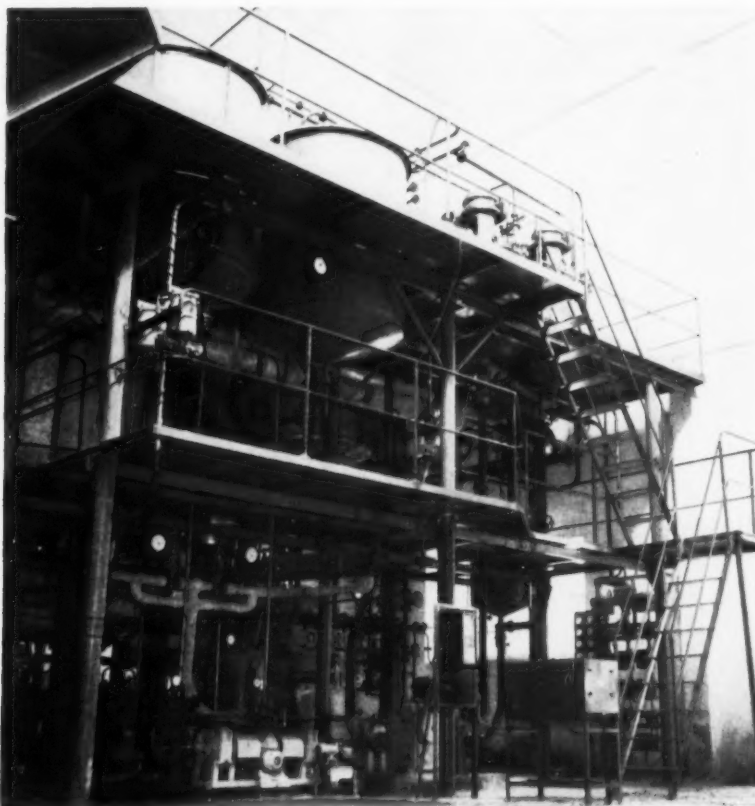
New and improved toiletries have resulted from the availability of many high purity fatty acid derived surface active agents

*Paper presented at 33rd annual convention, Association of American Soap & Glycerine Producers, New York, Jan. 20, 1960.

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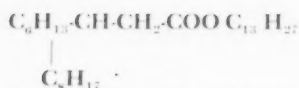
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13. Lanolin derived fatty acids and fatty alcohols—this wax ester yields normal fatty acids (even-numbered C_{10} - C_{20}), iso fatty acids (even-numbered C_{10} - C_{28}), anteiso fatty acids (odd-numbered C_9 - C_{31}), and hydroxy fatty acids (even-numbered C_{12} - C_{18}); and fatty alcohols (aliphatic, sterol, and "triterpenoid");
14. Lanolin derivatives—lanolin fatty acids to form amine soaps; lanolin fatty alcohol mono- and polyesters of ricinoleic and linoleic acids; acetate esters; ethoxylated ethers.

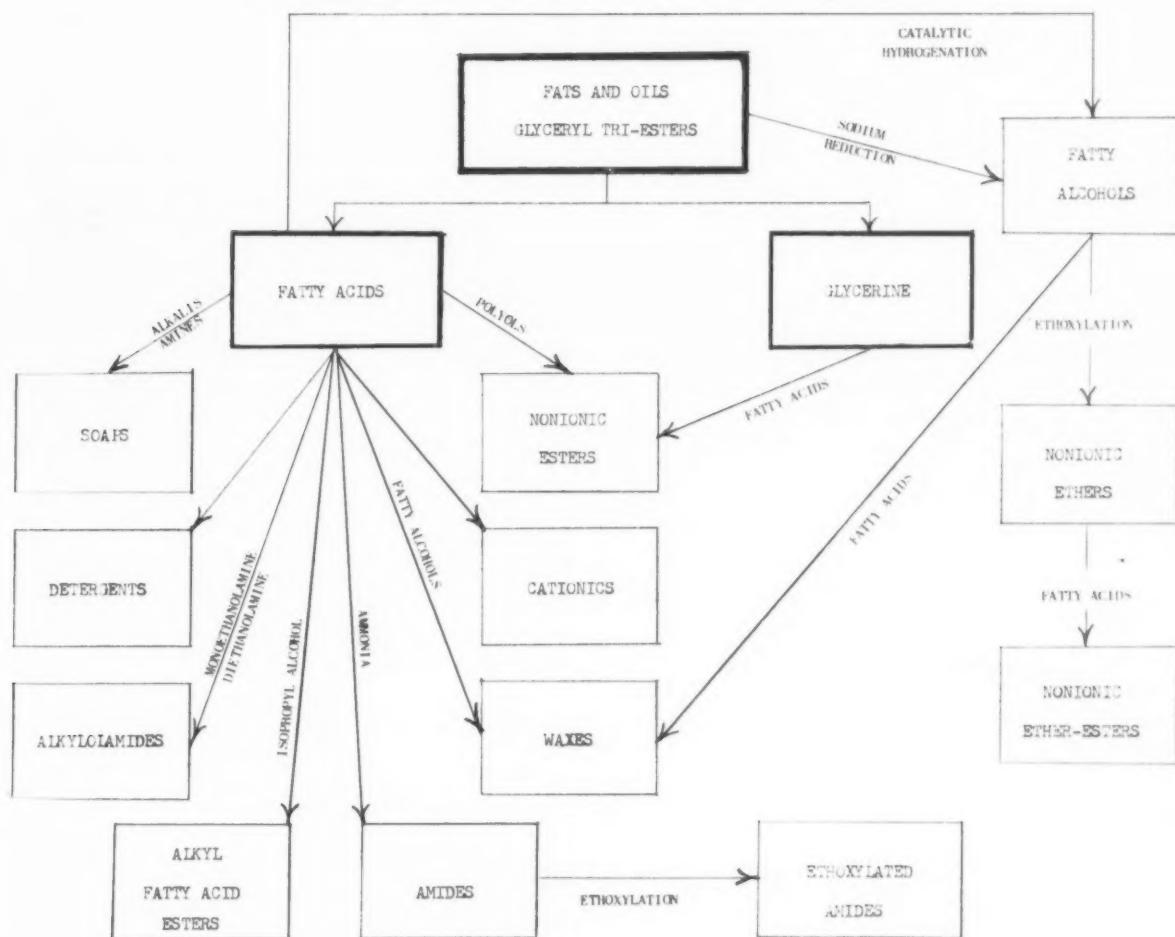
Availability of the many fatty acids listed previously and the ever-increasing variety of chemical derivatives has given rise to serious problems regarding chemical and physical specifications. There are perhaps ten companies supplying fatty acids to the toiletries industry and to specialty manufacturers of fatty acid derivatives. There are at least a dozen companies in the latter category, each with their own special manufacturing procedures, supplying fatty acid derivatives to the toiletries industry. It is therefore not surprising that this state of affairs often results in a given product which differs significantly when compared to another source of the same material. As a result a direct substitution of one source for another is

not possible and reformulation becomes necessary.

Need for Specifications

A discussion of the chemistry of glyceryl monostearate illustrates the difference one finds among the many suppliers. This extensively used emulsifier is generally made from triple-pressed stearic acid, consisting mostly of palmitic and stearic acids with small amounts of myristic and oleic acids. In addition to percentage differences of these four fatty acids from different sources, there is another variable in regard to its method of manufacture. The term "triple-pressed" now includes products prepared by solvent crystallization, vacuum distillation, and pressing in combination with

Surface active agents derived from naturally occurring fats and oils have a wide range of applications in all segments of the chemical specialties field.





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either procedure. The different crystalline types, obtained are a function of processing techniques, and the effects of these forms are of considerable significance in cream consistency and fracture (1). These chemical and physical differences carry over into the preparation of glyceryl monostearate and other fatty acid esters.

The case of the so-called "glyceryl monostearate" is further complicated because it consists of mono-, di-, and tri-esters of palmitic, stearic, oleic, and myristic acids, as well as 1.5% free fatty acids and about 3.5% glycerin. Hence, with four fatty acids in "triple-pressed" stearic and with three types of esters possible, there are 12 molecular species present in the mixture. The four major components are glyceryl mono- and di-palmitate, and mono- and di-stearate, with small amounts of oleate and myristate esters (total mono- ester and di-ester average about 45-47% each, and about 1.5% tri-ester). And since there is more palmitic than stearic in "triple-pressed" stearic acid (according to the 55/45 ratio), there is more mono- and di-palmitate present than stearate ester. So it would seem that what the industry sells as "glyceryl monostearate" is actually a misnomer. A more striking example is the so-called "ethylene glycol monostearate" which contains 50-60% di-ester and 43% mono-ester. While the acid number, saponification value, and melting point of alternate samples may meet specifications, the amounts of the 12 esters (in glyceryl monostearate) may vary sufficiently to change emulsification behavior and product stability. Another critical factor is the nature of the crystalline forms (polymorphism) of glycerides observed in different samples (2), and its significance in creams and lotions (3).

It is therefore strongly recommended that suppliers of these fatty acid esters include in all shipments the complete specifications for these variables. This should include the exact chemical

composition of the fatty acids, its method of manufacture, the mono-, di-, and tri- ester content, free fatty acid, and the other standard data such as melting point, color, iodine and saponification value.

The same practice is suggested to manufacturers of the other fatty acid derivatives described earlier. The importance of the exact fatty acid or fatty alcohol composition is often overlooked in detergents, alkyl esters, and others. Emphasis is generally placed on functional properties and elementary specifications. A detailed and complete physical and chemical analysis of the components used in its manufacture as well as of the finished material would be of considerable value to the cosmetic industry, where uniformity and stability of products is of prime importance. On those rare occasions when a production lot shows a loss of emulsion stability, a complete analytical record of the raw materials is invaluable in determining if the cause is chemical in nature.

Potentials of High Purity

There is one area in the fatty acid derivative field which has not been exploited, and is offered for consideration as one which may have potential market value, particularly in the cosmetic industry. Now that single fatty acids of extremely high purity are available, the manufacture of these glyceryl and other polyol esters would have decided advantages over the conventional fatty acid ester mixtures. For example glyceryl monostearate made with 93 or 97 percent stearic acid would avoid the inevitable differences in triple-pressed stearic acid composition, and perhaps might become the standard for this material. Glyceryl monopalmitate made with 93% palmitic acid is now possible, and may be preferable to other glyceryl esters in certain instances. In effect these high purity fatty acids would permit a broader range of hydrophilic-lipophilic characteristics in the glyceryl fatty acid ester

emulsifier family, thus adding greater versatility to their use.

An even greater refinement in approaching true chemical purity in nonionic esters is the molecularly distilled glyceryl monostearate containing 90-95% mono-ester. The application of molecular distillation in the preparation of these esters using high purity fatty acids and various polyols would be the ultimate in supplying the cosmetic industry with the most uniform and nearly chemically pure fatty acid esters. Here is one area which has hardly been explored, probably because of the cost factor, but certainly merits additional research to create a larger market with its attendant economies in production.

There is another area in fatty acid technology which would command more than academic interest by the cosmetic industry. This involves a study of the properties of fatty acids with more than 18 carbon atoms, such as arachidic (C-20), behenic (C-22), and lignoceric (C-24) in the saturated series; and arachidonic (C-20 tetra-unsaturated) and clupanodonic (C-22 penta-unsaturated) as members of the important essential poly-unsaturated fatty acids. The availability of these unusual fatty acids, free from color, odor, and impurities, would certainly strike the imagination of cosmetic research chemists, and perhaps give rise to a new series of derivatives with valuable properties not found in conventional types.

One aspect of fatty acid manufacture which permits greater flexibility in formulation is the availability of very high purity fatty acids. Lauric acid is available with 95% C-12 content, myristic acid with 94% C-14, palmitic acid with 93% C-16, and stearic acid with 94-97% C-18.

The definite crystalline structure of the conventional 55:45 palmitic/stearic ratio is well known and may be contrasted with a non-crystalline structure at a 40:60 ratio. The relative crystalline structure of a fatty acid mixture is of

CONCLUSIVE EVIDENCE OF THE SUPERIORITY OF CAUSTIC CLEANING FORMULATIONS CONTAINING *Pfizer* GLUCONATES!

If you compound caustic washing or cleaning formulations, you should put Pfizer Gluconates on trial in your formulas. Judge for yourself the economy and superiorities of caustic-gluconate formulations. Overwhelming evidence also shows that Pfizer Gluconates are stable, both in storage and in use, in caustic compounds.



EXHIBIT A

ONE SPARKLING CLEAN BOTTLE
—The inclusion of Pfizer Gluconates in your formula will assure bottling customers of a compound which will give spotless results. Pfizer Gluconates have proven to be the product of choice for preventing formation of film on bottles and scale on equipment.

EXHIBIT B

ONE BRIGHT STRIP OF ALUMINUM
—Pfizer Gluconates in your aluminum etching compounds prevent the formation of hard, adherent scale. Both Sodium Gluconate and Gluconic Acid increase caustic efficiency—you use less in your compounds yet assure your customers of a more uniform etch.

EXHIBIT C

ONE DE-RUSTED BOLT—Superior caustic rust removal compounds are now possible through the inclusion of Pfizer Gluconic Acid or Sodium Gluconate. In caustic solutions Pfizer Gluconates dissolve rust and prevent after-rust while increasing the efficiency and prolonging the life of the bath.

EXHIBIT D

ONE SHINY PIECE OF STEEL—Pfizer Sodium Gluconate and Gluconic Acid improve the effectiveness of your caustic paint stripping compounds by eliminating the usual brown layer of iron hydroxide. Also they permit freer rinsing of the paint-stripped metal.

THE VERDICT

The verdict is unanimous—Pfizer Gluconic Acid and Sodium Gluconate assure you of compounds with the highest cleaning and etching efficiency. Write Pfizer for complete technical data and information on the proper Gluconate use levels.

CHAS. PFIZER & CO., INC., Chemical Sales Division, 838 Flushing Ave., Brooklyn 6, N. Y. Branch Offices: Clifton, N. J.; Chicago, Ill.; San Francisco, Calif.; Vernon, Calif.; Atlanta, Ga.; Dallas, Tex.

critical importance in shaving and vanishing creams, in regard to consistency, rheology, fracture, pearliness, and product stability. By custom blending the single high purity fatty acids it may be possible to achieve the desired degree of crystallinity or amorphous structure.

In soap shampoo formulations the foaming properties, bubble size, foam stability, solubility, and detergent action are a function of the fatty acid composition. These properties may be controlled to a degree which was once impossible before the availability of these single high purity fatty acids.

Shampoos and dentifrices which use synthetic detergents contain a fatty acid component which is part of the surface-active agent, generally derived from coconut oil.

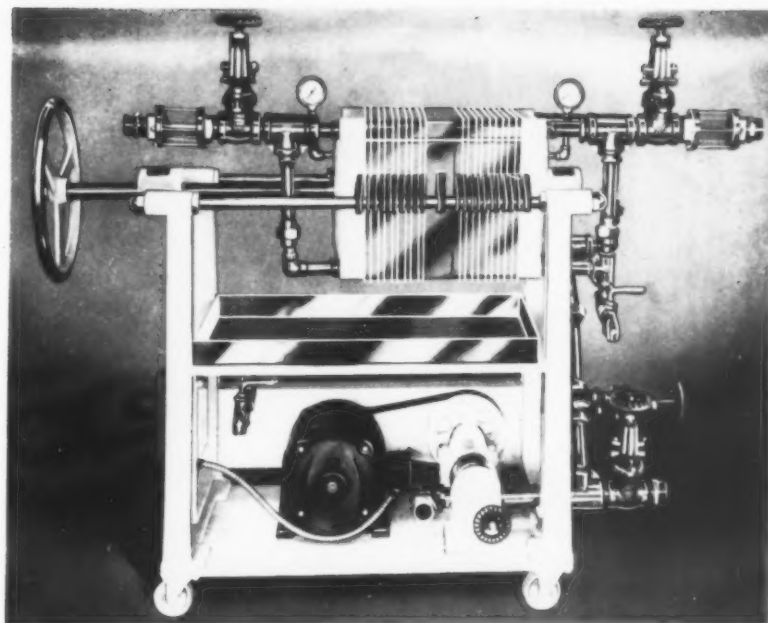
The fatty acids are used in high concentrations in shaving and vanishing creams, soap shampoos, permanent hair coloring, and cologne and deodorant sticks; and in low concentrations in hand lotions, cleansing and emollient creams and lotions, and liquid make-up.

The nonionic fatty acid esters and fatty alcohol ethers serve as emulsifiers, emollients, thickeners, and solubilizers, and are used in these same creams, lotions, and make-up, including lipstick, face powder, mascara, and eye shadow.

The complete dependence of almost all cosmetic formulations on natural fats and oils and fatty acid derivatives is summarized in the drawing. One could list a long series of cosmetic formulations, each containing one or more of these derivatives, but they are readily found in cosmetic books such as "Cosmetics: Science and Technology" (4), and suppliers' literature.

References

1. Tillotson, C. C.: Some physical chemical properties of stearic acid; *J. Soc. Cosm. Chem.*; 6: 40 (1955)
2. Lutton, E. S.: Review of the polymorphism of saturated even glycerides; *J. Am. Oil Chemists' Soc.*; 27: 276 (1950)



New Ertel duplex filter which permits single or double filtrations in single operation.

3. Lutton, E. S.: The polymorphism of glycerides—an application of X-ray diffraction; *J. Soc. Cosm. Chem.*; 6: 26 (1955)

4. Sagarin, E.: *Cosmetics: Science and Technology*; Interscience Pub., New York (1957)



New Clintwood Booklet

A technical brochure was recently published by Clintwood Chemical Co., 33 N. LaSalle St., Chicago 2, describing the properties and uses of its alkanolamides and glycol esters. Information is given on the functions of the alkanolamides as foam boosters, foam stabilizers, thickeners, detergents, and emulsifiers. Formulas for shampoos, liquid detergents, dishwashing compounds, and floor cleaners also are included. The booklet has directions for the use of opacifying agents in liquid detergents and cosmetics.



New Ertel Duplex Filter

Ertel Engineering Corp., Kingston, N. Y., recently introduced a new duplex filter which permits single filtration or double filtration in one operation. It is suggested for processes where some liquids require both primary and polishing filtration and others require a single pass. Designated

"EFS Duplex," the model comes with standard or sludge type inlet frames. There are no rubber washers or gaskets; the filter medium forms a seal around the edges of the filter frames. Available with or without pump, motor, and pressure control, the model comes in a number of sizes holding from 10 to 100 twelve by twelve inch filtering surfaces. Liquid contact parts are supplied either in stainless steel or nickel plated bronze.

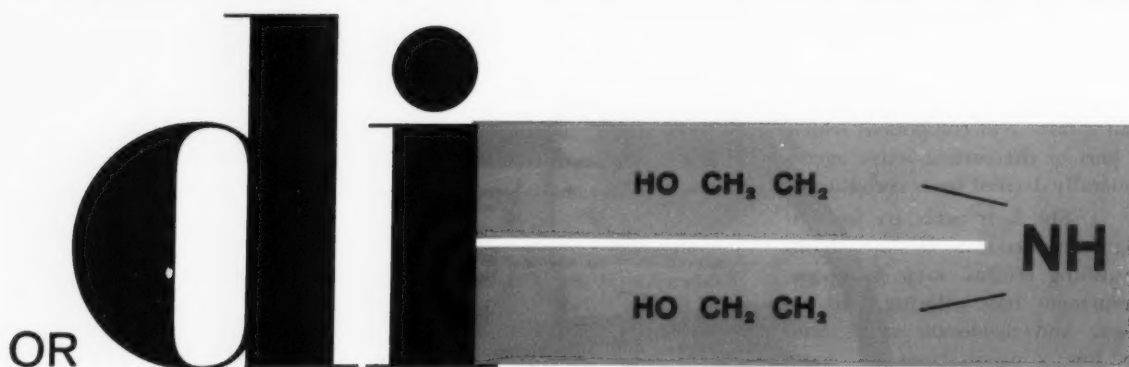
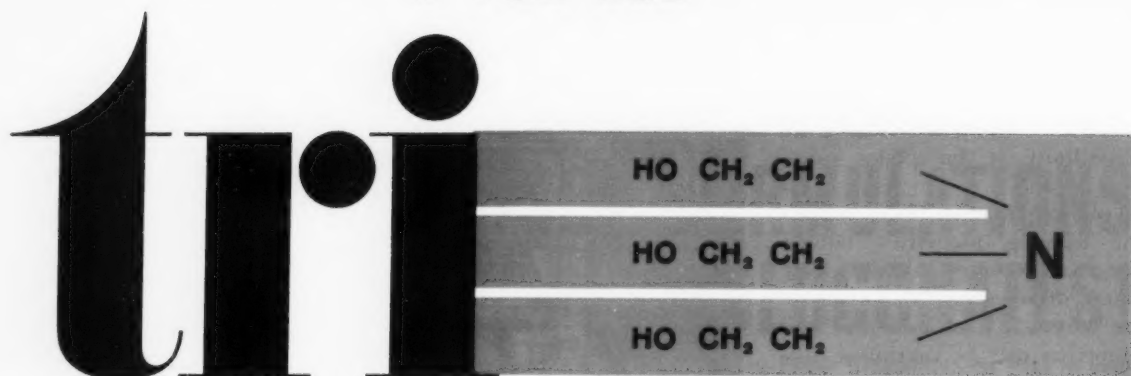


New Onyx Surfactant

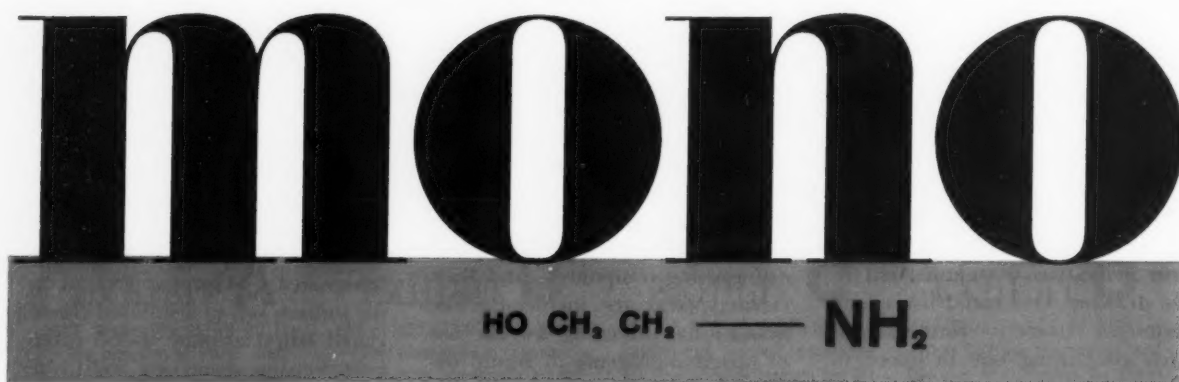
Sodium lauryl ether sulfate, a new surface active agent, has just been introduced by Onyx Oil & Chemical Co., Jersey City 2, N. J. Designated "Maprofix ES," it is the sodium salt of a sulfated ethoxylated lauryl alcohol. Good detergent, wetting, dispersing and foaming properties are claimed for the product. The new compound has an extremely low cloud point (0°C. max.) and high tolerance to calcium and magnesium ions, representing advantages over sodium lauryl sulfates, Onyx claims.

"Maprofix ES" may be used in shampoo formulations, viscosity of which can be increased and controlled by addition of inorganic salts such as potassium or sodium

IF YOU USE



DON'T OVERLOOK



It won't hold for everybody, but in some applications where di- or triethanolamine is being used, there are positive advantages to be gained from switching to mono-. For example, MEA can frequently be used advantageously as the amine in amine soap emulsifiers for such products as cutting oils, weedicides, waxes and buffing compounds. In some instances total amine required is reduced to the extent that cost is reduced. In some cases mixtures of MEA and TEA are better than either alone.

MEA may improve performance while TEA maintains a lower pH.

If your product or process now utilizes DEA or TEA, it may pay you to evaluate MEA. Allied Chemical makes all three, and will give you technical suggestions that may help you reduce costs, improve efficiency or make a better product. Write for any technical assistance you need.

For specifications and local offices, see our insert in Chemical Materials Catalog, pages 475-482 and in Chemical Week Buyers Guide, pages 37-44.

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chlorides or by incorporation of lauryl alcohol or ethoxylated lauryl alcohol. The surfactant may also be employed in other cosmetic formulations.

Available in 55 gallon "liquipak" containers, "Maprofix ES" is described in detail in a technical bulletin available from Onyx.

★ **Shampoo 'Compass'**

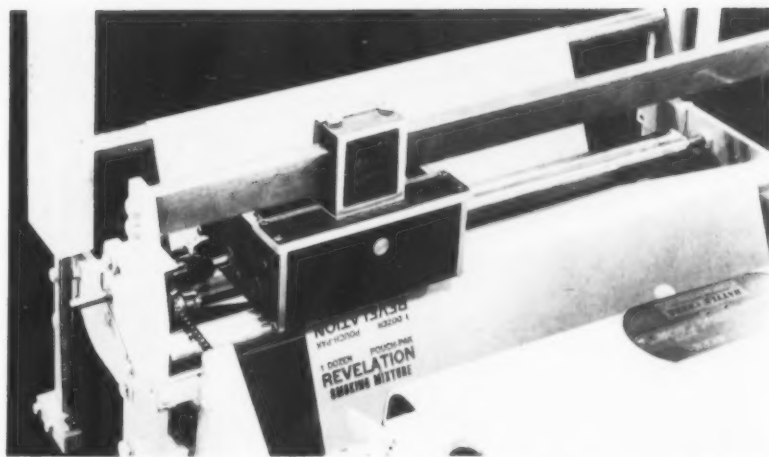
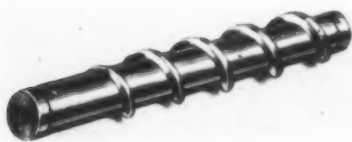
An ingenious new device for the fast selection of basic shampoo formulations has just been developed by Dehydag Deutsche Hydrierwerke G.m.b.H. of Dueseldorf, Germany. The "Texapon Compass" is available in this country from Fallek Products Co., 165 Broadway, New York 6, Dehydag's U. S. distributors.

Seventeen shampoos and two bubble bath formulations can be 'dialed' on this circular chart. Based on Dehydag's line of "Texapon" fatty acid sulfates and "Comperlan" fatty acid alkanol-amides the formulas show ingredients and approximate active content of the formulated base. For ease of selection, paste products are shown in pink, liquids in yellow, and powders in blue.

★ **New Plastic Feed Worms**

A new plastic material is now used to fabricate feed worms or timing screws for packaging machinery, it was announced recently by U. S. Bottlers Machinery Co., 4015 N. Rockwell Street, Chicago 18. The new composition is black, is said to be wear resistant and yet sufficiently resilient to withstand shock contact.

U. S. Bottlers has installed special worm cutting equipment in order to supply custom cut feed worms to packaging equipment manufacturers in addition to its established standard line of PFWF feed worms.



One of six new package coding machines of Adolph Gottscho, Inc., Hillside, N. J., to be shown at coming National Packaging Show in Atlantic City, in April.

Carbide Ketones Data

A new 48-page brochure describing ketones as solvents and chemical intermediates has just become available from Union Carbide Chemicals Co., 30 East 42nd Street, New York 17. Comprehensive data on the properties and application of 15 ketones and diketones available in commercial quantities are presented and substantiated by an extensive bibliography.

★ **New Coding Device**

Six new package coding and imprinting attachments for conveyors and packaging machines will be introduced by Adolph Gottscho, Inc., Hillside 5, N. J. Gottscho will present the new devices at the AMA Packaging Show in Atlantic City, N. J., April 4-7. They include "Markomatic A" for coding packages on intermittent lines; "TMT Markocoder" for imprinting tops of cans, jars, bottles at speeds of up to 1000 units per minute; "450 Rolacoder" for roll-through labelling machines, code dates wraparound labels; "210 Rolacoder" for automatic coding of shipping cases during conveying or sealing; and "790 Rolaprinter" for accurately placing imprints on side surface of cartons etc. Shown above is the recently improved version of the "700 Rolaprinter" attachment for wrapping, bundling, and bag making machines. Im-

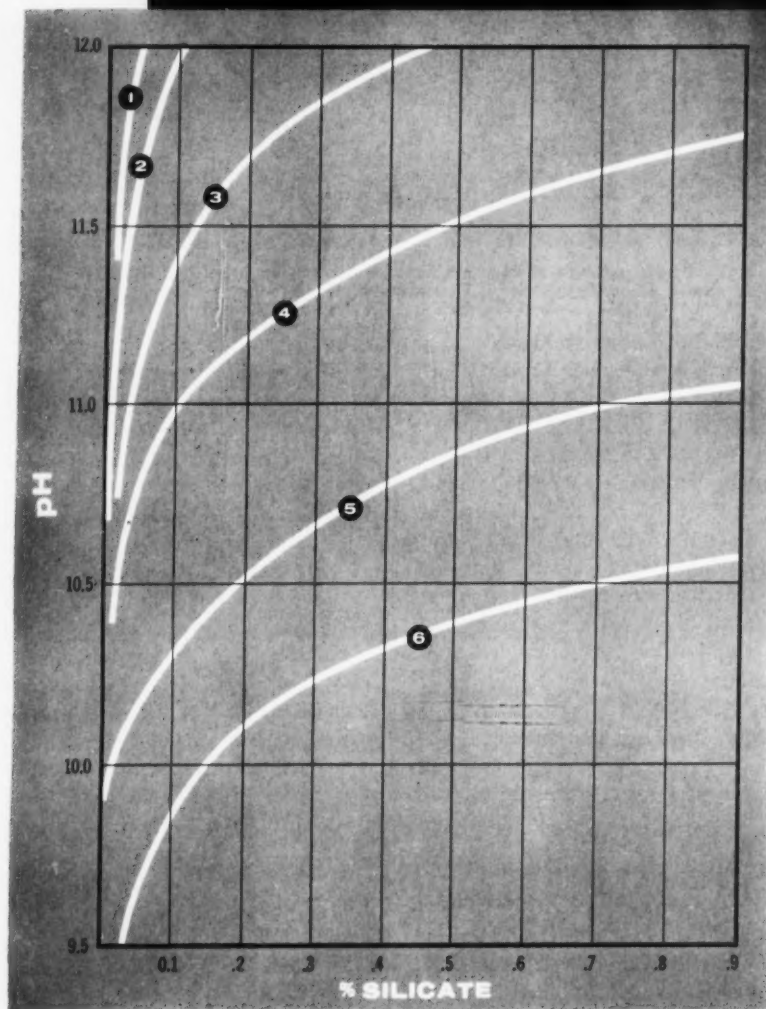
provements consist of larger imprint area, new drive arrangement for positive skipless imprinting, and an improved inking system for fast drying imprints. This model will also be exhibited at Atlantic City.

★ **Geigy Issues Brochure**

"Geigy Surfactants" is the title of an eight page bulletin just released by Geigy Industrial Chemicals Division of Geigy Chemical Corp., Ardsley, N.Y. Physical properties and end uses of Geigy's line of surfactants are presented in tabular form. Included are the "Sarkosyl" group of n-acyl sarcosines, described as modified fatty acids in which the hydrocarbon chain is interrupted by an amidomethyl group. Offering a range of solubility from mineral oil and silicones to 30 per cent aqueous potassium hydroxide, these compounds are claimed to be odorless, practically tasteless, low in toxicity, anti-corrosive, and anti-enzyme. They are designed for use in aerosol formulations of personal and other specialties, for tooth pastes, shampoos, toilet soaps, and a wide range of other detergent applications.

"Nonisol" nonionic surface active fatty esters of higher polyglycols are suggested for use in waterless cleaners, dry cleaning detergents, white wall tire cleaners, (Turn to Page 183)

PQ SOLUBLE SILICATES offer **W-I-D-E pH RANGE**



In the PQ Catalog there are over 50 soluble silicates (sodium or potassium) to fit your individual detergent formulations. The pH, for instance, can be placed where it is wanted by the use of PQ silicates of varying $\% \text{Na}_2\text{O}:\% \text{SiO}_2$ ratio. Plotted in the graph are pH vs. concentrations for five PQ silicates at 20°C. showing increase in pH at different concentrations and decrease in pH with the more siliceous silicates, (i.e., a lower alkali to silica ratio). Once established, the pH is maintained; again a function of the soluble silica.

If you would like a reprint which discusses the buffering effect of silica on pH, please mail your request to our general offices in Philadelphia.

- curve . . .
- 1 NaOH • (caustic)
 - 2 $\text{Na}_2\text{SiO}_3 \cdot 5\text{H}_2\text{O}$ • **Metso Granular**, sodium metasilicate pentahydrate
 - 3 $\text{Na}_2\text{O}:\text{1.6SiO}_2$ • **B-W** liquid sodium silicate
 - 4 $\text{Na}_2\text{O}:\text{2.0SiO}_2$ • **C** liquid sodium silicate
 - 5 $\text{Na}_2\text{O}:\text{2.9SiO}_2$ • **K** liquid sodium silicate
 - 6 $\text{Na}_2\text{O}:\text{3.2SiO}_2$ • **N** liquid sodium silicate

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SOAP PLANT *Observer*

By Willis J. Beach

Technical Service Department,
Sugar Beet Products Co.

THE story of Sam Gooch who cudn't spel but shure cud sel" has gone the rounds of so many trade papers that I wouldn't think of dusting it off for a complete rehash in this column, but for those who missed it let me repeat the punch line. It illustrates a point. The story is about an "unlettered" salesman whose reports, though readable, were an amazing jumble of illiteracy. But he was outselling all others on the sales force. The firm's V.P. sensing the real issue, sent this memo to the sales force (with a copy of Sam's latest offering):

"Dere Men: — We been spendin too much time here tryin to spel instead of tryin to sel. Let's watch those sails. I want ever-buddy shud reed this letter from Gooch who is on the rode doin a grate job for us, and you shud go out and do like he done."

We can all miss the highway of accomplishment by getting too involved in the byways. The editor of "A Laff and a Lift," house organ of American Colloid Co., recently included an extra sheet (possibly as an afterthought) with a story illustrating what happens when you allow your objectives to become obscured by a tangle of non-essentials. He tells of a colleague who created something of a sensation when he showed up to participate in the annual newspaper golf tournament.

"No golfer in the history of the game had ever been more elegantly attired. His plus-fours (the golfing uniform of that day) were of the finest material and most stylishly cut; his stockings were a sunburst of color; and atop his head was a spectacular cap featuring a plaid design of exciting hue.

The jaunty journalist



stepped onto the first tee, amid murmurs of admiration from the ladies and envy from the other players — more plainly garbed. Wagging his club several times and adjusting his cap and belt, he took a mighty cut at the ball — and missed."

— * —

Last fall, the Detroit Chapter of the Institute of Sanitation Management held its annual conference at Wayne State University, Detroit. W. L. Mallman, Professor of Bacteriology at Michigan State was one of the speakers. Doc Mallman's work has appeared in this journal over the years and he is one of the most renowned and respected men in his field. He offered some wise words on disinfection that have a bearing on the tempest that has been taking place in this field during the past two years.

According to Doc Mallman, it would seem that perhaps we are "letting our objectives become obscured by a tangle of non-essentials," although he didn't put it quite that way. He said that perhaps there is too much emphasis and worry about resistant strains, mutation and that sort of thing and not enough attention to just

plain cleaning. He pointed out that here are many areas that don't necessarily need disinfection in addition to cleaning—once they are cleaned well. He reminds us that disinfectants generally are not good penetrating agents, and that a surface may not be susceptible to disinfection unless and until it is free from dirt and grime. So let's put enough cleaner in our cleaner-disinfectants, and enough "show how" in our demonstrations.

— * —

Cleaning Tank Cars

The use of syndets in cleaning railroad cars was first brought to our attention some twelve years ago in an article in this magazine. There were illustrations of large brushing machines installed in the yards for cleaning the outsides of the cars. We now learn (from Union Carbide's *Chemical Progress*) that the use of syndets for cleaning the *inside* of tank cars is much more effective than simply steam cleaning.

When residues cling tenaciously to inner walls of tank cars (plasticizers for example), Carbide recommends the use of a hot water stream containing a small amount of a non-ionic syndet. Carbide's process development lab found that a 0.1% solution of their "Tergitol" non-ionic TMN in a stream of water at 140°F. is particularly effective for removing oils and greasy materials from clean or rusty steel, aluminum, and phenolic coated surfaces. Surfaces should be sprayed three times from a distance of one or two inches, then rinsed with cold water. The non-ionic apparently acts both as a wetting agent and as an emulsifier.

— * —

Quaternaries Test Kit

A wide range of concentrations of quaternary ammonium compounds can be measured by a test kit introduced late last month by LaMotte Chemical Products Co., Chestertown, Md. The kit is designed for determination of concentrations ranging from 1.0 p.p.m. to 500 p.p.m. and higher. The

lower readings are made directly. Higher readings require a dilution step for which equipment is provided in the set.

Color standards are mounted in a "Plexiglas" viewing device which eliminates handling of individual standards and is claimed to facilitate readings. The kit contains sufficient material for approximately 200 determinations. It weighs three pounds, comes in a carrying case, costs \$25.00 each.

Soap Production Yearbook

The third edition of the German soap production yearbook has just been published by Verlag fuer Chemische Industrie H. Ziolkowsky K.G., Augsburg, Germany. This pocket encyclopedia is devoted to the needs of the production man in the oils, fats, soap, detergent, cosmetic, wax, and other chemical processing industries. Measuring only six by four and one half inches, the little volume

contains 352 pages of highly informative text and 34 pages of advertising. Technical articles in German include among others: "Alkylbenzene Sulfonic Acid, a Versatile Material", by A. Davidsohn, Haifa; "Theory of the Mechanism Whereby Dairy Detergents Clean", by H. Stuepel, Hochdorf; "Development of the Soap and Detergent Industries in the last Decade", by H. Manneck; "Three Forgotten Raw Materials for Soap Perfumes", by H. Schmidt; "Phenomena in Wax Technology", by L. Ivanovsky; and "Mineral Waxes in Cleaning and Polishing Compounds", by Wolfgang Kreuder.

A special section is devoted to basic formulations in the soap, and detergent fields; cosmetics, and household and other specialties. A number of personal and household products in aerosol form are included in this section.

Information in tabular form covers pressure packaging data, artificial standard soils, SAE standards, and a wide range of other facts pertaining to all segments of the specialties industries. New fragrance compositions are listed in a special section and new literature is shown separately from the established texts. A buyers' guide is appended.

Jahrbuch fuer den Praktiker, Third Edition, 1960, H. Ziolkowsky K.G., Beethovenstrasse 16, Augsburg, Germany, flexible covers, price DM 8.40 (approximately \$2.10).

— ★ —

Recording Balances

Automatic recording balances for analytical and semi-micro use are described in a number of data sheets available from Wm. Ainsworth & Sons, Inc., 2151 Lawrence Street, Denver 5, Colo. A two-pan thermogravimetric balance comes in both analytical and semi-micro size. A line of vacuum semi-micro balances will weigh samples in air or inert gas, at atmospheric or reduced pressure, at room or elevated temperatures. For prices and specifications of this line of recording balances contact Ainsworth.



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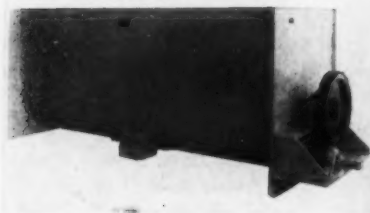
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PINE OIL SMELLS CLEAN—It provides the end product with a smell as fresh and reassuring as a pine forest.

PINE OIL CLEANS CLEAN—Pine oil does more than

impart odor. It has definite chemical properties as a wetting agent and solvent to actually assist the other components of a cleaning agent in cutting grease. And it has high bactericidal qualities as well.

To keep pace with the expanding demand for pine oil, Hercules and other producers have steadily increased their output and plan still more capacity for 1960.



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RUBBER CHEMICALS DIVISION:

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London and Manchester, England



NEW Patents

The data listed below are brief reviews of recent patents. Complete copies may be obtained from the publisher of this magazine:—Mac-Nair-Dorland Co., 254 W. 31st Street, New York 1, N. Y. Remit 50¢ for each copy. For orders received from outside of the United States send \$1.00 per copy.

No. 2,913,417. Detergent Composition, patented by Lloyd E. Weeks, Union, O., assignor to Monsanto Chemical Co., St. Louis, Mo. Revealed is a surface-active composition, the essential ingredient of which is composed of a mixture of from 20% to 80% of a fatty acid alkanolamide derived from tall oil and having from 10-20 carbon atoms in the acid radical, and less than 4 carbon atoms in each chain in the amine radical, and from 80% to 20% of the condensation product of 1 to 20 moles of ethylene oxide condensed with 1 mole of a mixture boiling within the range of 226° C. to 264° C. at normal atmospheric pressure, of highly-branched, monohydric, primary alcohols having the molecular configuration of an alcohol produced by the Oxo process from an olefin of the class consisting of polybutylenes and polypropylenes.

No. 2,915,473. Detergent Compositions, patented by Alexander J. Stirtor, Philadelphia, James K. Weil, North Wales, and Elmer W. Maurer, Philadelphia, assignors to the United States of America as represented by the Secretary of Agriculture. Revealed is a detergent composition comprising at least about 10% each of (1) a compound having the formula

$RCH_2CH_2OSO_2M$
and (2) a compound having the formula SO_2M

wherein R is a straight-chain aliphatic hydrocarbon radical having 14 to 22 carbon atoms, M is a member selected from the group consisting of alkali metals, ammonium and substituted ammonium radicals, and M' is a member of the group consisting of M and hydrogen.

No. 2,917,428. Bactericidal Composition Comprising Tetra Alkyl Quaternary Ammonium Halide and Hydrogen Peroxide, patented by Donald O. Hitzman, Bartlesville, Okla., assignor to Phillips Petroleum Co. A bactericidal liquid is patented resistant to the formation of colonies of anaerobic bacteria. Comprising a major amount of water, and in parts per million of the volume of said water. 2.5 to 20

p.p.m. of an aqueous solution of 29% by weight hydrogen peroxide and 2.5 to 20 p.p.m. of an amine bactericide selected from the group consisting of water dispersible and water soluble saturated completely acyclic tetraalkyl quaternary ammonium halide salts in which the alkyl groups are all attached to the nitrogen atom, and acetate salts of saturated acyclic amines, in which the alkyl and the acyclic radicals have from 5 to 20 carbon atoms each.

No. 2,919,226. Preservative Use of 4-Hydroxy-3,5-Dimethoxyallylbenzene, patented by Irving Levi, Montreal, assignor to Charles E. Frosst & Co., Montreal, Can. This patent claims a method of destroying larva and fungi and inhibiting the formation of acids by organisms and enzymes present in saliva, comprising applying to a host, an effective amount of 4-hydroxy-3,5-dimethoxy-allylbenzene.

No. 2,914,482. Heavy Duty Liquid Detergent, patented by Marvin Kopp, Lenox, Mass., assignor to General Aniline & Film Corp., New York. This patent reveals a heavy duty detergent composition consisting essentially of a combination of a water-soluble nonionic surface active agent of the formula



wherein R represents a hydrocarbon radical selected from the group consisting of the hydrocarbon residue of tridecyl alcohol and nonylphenol and n represents an integer within the range of 9 to 30 with from 1/15 to 1/2 by weight of said nonionic surface active agent of carboxymethyl cellulose and from 1/3 to 1 1/2 times by weight of said nonionic surface active agent of alkanol amine selected from the group consisting of mono, di- and triethanol amine.

No. 2,912,385. Liquid Soap Composition, patented by Lillian Lena Golub and Herbert Smith Sylvester, Whitestone, N. Y., assignors to Colgate-Palmolive Co., Jersey City, N. J. Covered is a concentrated potassium liquid soap comprising a solution of from about 5% to 40% by weight of a potassium soap of a higher fatty acid in water and from about 0.019% by weight of said soap of a compound selected from the group consisting of 2-mercaptobenzothiazole and alkali metal salts thereof, said mercaptobenzothiazole compound being effective to inhibit the corrosive action of said soap concentrate on copper.

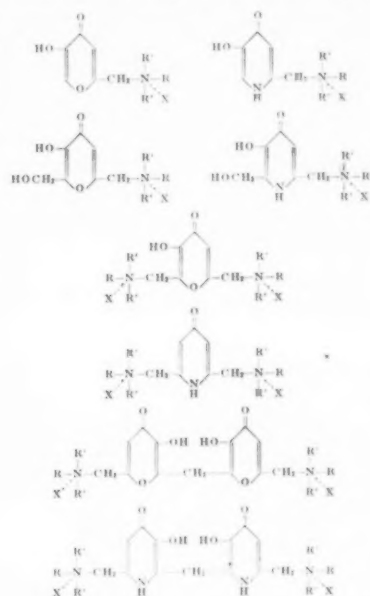
No. 2,918,400. Sanitizing Compositions, patented by Alfred C. Loonam, New York, assignor to Chilean Nitrate Sales Corp., New York. A composition is patented capable of producing iodine on contact with water, comprising an alkali iodine, an alkali iodate and an acidifying agent, in relative proportions sufficient to react, on addition of water, to effect substantially complete conversion of

said iodide and iodate to elemental iodine, said alkali iodate being present within said composition in the form of at least one double salt in which the alkali iodate is complexed with a salt component selected from the group consisting of alkali sulfates and alkali iodides.

No. 2,919,227. Synergist-Containing Polycyclic Aldehydes and Alcohols as Insect Repellents, patented by Lyle D. Goodhue and Kenneth E. Cantrel, Bartlesville, Okla., assignors to Phillips Petroleum Co. The patent covers an insect repellent containing as an essential active ingredient a polycyclic repellent compound selected from the group consisting of 2,3,4,5-bis(Δ^2 -butenyne) tetrahydrofurfuryl alcohol and 2,3,4,5-bis(Δ^2 -butenyne) tetrahydrofurfural together with a synergistic amount of N-octyl bicyclo [2.2.1] -5-heptene-2,3-dicarboximide, wherein the ratio of said N-octyl bicyclo [2.2.1]-5-heptene-2,3-dicarboximide to said polycyclic repellent compound is in the range of 0.5:1 to 10:1 parts by weight.

No. 2,906,664. Germicidal Compositions, patented by Philip Maurice, London, assignor to Monsanto Chemicals, Ltd., London, England. A germicidal composition is disclosed comprising castor oil soap and as active ingredient the sodium salt of dichloro-m-xenol in the proportion of 0.15 to 2.4 parts of the former to one part of the latter by weight.

No. 2,918,402. Bactericidal-Fungicidal Compositions, patented by Jerome F. Fredrick, New York, assignor to the Dodge Chemical Co., Boston, Mass. Claimed is a cationic quaternary ammonium compound selected from the group consisting of



and metal chelates thereof, where R is a non-acetylenic aliphatic hydrocarbon having between 8 and 18 carbon atoms inclusive and not more than two carbon to carbon double bonds, R' is a lower alkyl group and X is an inert anion.



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Sales Offices in Principal Cities

Products and PROCESSES

Beer Shampoo

A paste form base for beer shampoo contains the following active components, according to the "Texapon" formulation selector, published Dehydtag, Deutsche Hydrierwerke G.m.b.H., Duesseldorf, Germany.

	Parts
"Texapon" CS* paste (fatty acid sulfate)	85
"Comperlan" KM* (fatty acid alkanolamide)	4
Beer Concentrate	11

*Dehydtag Deutsche Hydrierwerke G.m.b.H., distributed by Fallek Products Co., 165 Broadway, New York 6.

Masks Exhaust Fumes

"Deodall #1" as an effective neutralizer of diesel exhaust fumes is featured in the January issue of *Sindar Reporter*, external house organ of Sindar Corp., 321 West 44th Street, New York 37. Added directly to the diesel fuel at an 0.1 per cent by volume concentration the masking agent is said to greatly improve exhaust odors of buses and other diesel operated vehicles and to reduce eye irritation produced by the fumes. Cost of treatment is said to be about ¼ cent per gallon.

"Deodall #1" is a blend of aromatic chemicals said to be an effective masking agent in detergents, polishes, paints, and many other offending products.

Sanitizers with 'Vancide'

"Household Sanitizing Products with 'Vancide' BN" is the title of an eight page bulletin just published by R. T. Vanderbilt Co., 230 Park Avenue, New York 17. "Vancide" BN is a bacteriostatic agent said to be effective against both Gram-positive and Gram-negative bacteria and to have fungicidal and fungistatic properties. Described as disodium 2,2-thiobis (4,6 dichlorophenoxide) the compound is claimed to be substantive to skin and textiles.

The folder gives nine sug-

gested formulations for polishes and various cleaners including textile and hard surface cleaners. A pressure packaged rug and upholstery cleaner is included.

Data on Surfactants

A 22-page booklet entitled "Igepal" Surfactants in Pulp and Paper Manufacture" is now available from General Dyestuff Co., a sales division of General Aniline & Film Corp., 435 Hudson Street, New York 14. Four "Igepal" surfactive agents are described. The brochure covers uses of these alkylphenol/ethylene oxide adducts in pulp manufacture, in paper and cardboard making, in the washing of woolen paper machine felts and in the de-inking of paper and stripping and cleaning of rag stock.

Sanitizer Field Test

A new "Roccal" field test method and indicator tablet have just become available from Sterwin Chemicals, Inc., 1450 Broadway, New York 18. The test tablet contains a color indicator formulated to signal any deviation from the

New "Pour Easy" pail rack introduced recently by Hub States Chemical & Equipment Co., 1255 N. Windsor St., Indianapolis, Ind., designed to pour liquids from five gallon pails into smaller container. Band is clamped on the container by tightening a wingnut and thus balancing the container.



recommended level of 200 parts per million sanitizer. When the tablet is put into 8 ml. of a solution containing less than 200 ppm of sanitizer the amount of active sanitizer present is not enough to trigger the color change mechanism. Since the test tablets measure effective sanitizer concentration they will detect not only impairment by water hardness but also the presence of soaps or anionic wetting agents if these are carried over into a sanitizing solution in sufficient quantities to deteriorate its antibacterial properties.

Aerosol Rug Cleaner

A sanitizing rug and upholstery cleaner in aerosol form is suggested in technical bulletin No. 129, just published by R. T. Vanderbilt Co., 230 Park Avenue, New York 17. The formula calls for the following ingredients:

Components	% by Weight
A	
"Veegum"* (colloidal magnesium aluminum silicate)	4.90
Water	64.85
Sodium chloride	1.00
B	
Coconut fatty acids	15.00
Isopropyl alcohol	4.00
Triethanolamine	10.00
C	
"Vancide BN"* [disodium 2,2-thiobis (4,6 dichlorophenoxide)]	0.25

1. Add "Veegum" to water slowly, agitating continually until smooth; add sodium chloride dissolved in a little water to the "Veegum" dispersion; warm slightly. 2. Melt coconut fatty acids; add alcohol; then add triethanolamine; 3. Add 2 to 1 and mix. 4. Add "Vancide BN" to 3 and mix thoroughly and pressure fill.

Fill 100 grams of the above concentrate with 10 to 20 grams of "Freon" 12**. The formula yields a clear liquid soap, opacified and bodied with "Veegum". The resulting creamy product is suitable for extrusion from an aerosol container in the form of foam.

*Trade name of R. T. Vanderbilt Co.
**Trade name of E. I. du Pont de Nemours & Co.

Soap Meetings

(From Page 50)

automatic equipment will probably not be greater, if as much as that of present equipment because of improvements in production methods; casting of units in plastics was mentioned as a real possibility.

"Toilet Bars"—There has been apparently no increase in per capita consumption of bars for many years. One reason for this may be the supplanting of bars in non-personal cleaning uses by specialized cleaners. The question was raised whether personal cleansing in this country is not past the point of using more soap per person.

"General Purpose Household Cleaners" — There was no detailed discussion of these products but the recent appearance of liquids here illustrates the trend to specialized products. There is some evidence that the liquids have carved out a new market for themselves and have largely supplanted rather than replaced the older powders."

Turning to the raw materials aspect of the discussion participants made the following observations:

"Surfactants"—The soap industry grew up with a 10 cents per pound material which it manufactured itself. The replacement of soaps by synthetics has made the industry largely dependent on the chemical industry as a supplier of raw materials. Products of the chemical industry are generally over 15 cents a pound in price. This has been a deterrent to development and acceptance by the soap and detergent industry of new chemical materials.

"Evolutionary improvements" will be made in the present work-horse surfactant, alkylbenzene sulfonate. This material is in the traditional soap price range. There will be a variety of types available with different alkyl chain lengths for specific jobs. It is well known that the dodecylbenzene-based products are deficient in soft and hot waters. Newer ABS products should overcome these deficiencies.

"Many chemical products" are available which would make low cost hydrophobes such as straight chain alcohols made by the Ziegler or Oxo processes and petroleum waxes. Processes must be developed to convert these hydrophobes to inexpensive surfactants, whether anionic or nonionic. It was pointed out that a Cobalt 60 catalyzed reaction will direct sulfonation or sulfation.

"Builders"—Nothing really new in builders has emerged in the past decade. This fact has been important in determining the slow rate of development of the heavy duty liquids. There is some indication that combinations of new silicates with phosphates may be effective.

In general, the outlook for new builders is less promising than for new surfactants.

"Other Additives and Auxiliaries"—The new ABS compounds may reduce the need for foam-builders in laundry detergents. The continued increase in the number of specialized cleaning products available will create markets for new additives and auxiliaries, just as in the past decade softeners, bleaches, and anti-static agents have made gains.

The group stressed the need for understanding and cooperation between primary producer and industrial consumer.

"Product Development"—The approach to product development must start with an understanding of consumer needs. The merchandising people believe that there must be liaison between themselves and the technical people in both their own companies and in supplier companies in order to direct development to products which fulfill consumer needs. At present, there is a serious gap between chemical industry development laboratories and the laboratories and merchandising organizations of the soap and detergent companies.

"This gap can be bridged, at least in part, by giving chemical sales representatives a better understanding of the technical and merchandising problems of the soap and detergent industry."

"Technical personnel must constantly tap the experience of the merchandising staff for new product ideas."

"Industry Structure"—Private branding and regional products have increased in the past decade and will probably continue to increase in the future. The rise of liquids with their lower capital requirements has accelerated this trend. This represents a serious challenge to the larger merchandising companies. It can be met with greater product innovation than in the past and by a concerted effort to narrow the gap between the detergent industry and their chemical industry suppliers.

"Past history leads to the belief that there will not be a trend to integration between raw material manufacture and formulation in this industry as there has been in the plastics industry."

Industrial Marketing

"Marketing of Industrial Products" was the topic of a discussion led by Balfour J. Augst of Armour and Co.

In introducing an industrial product for marketing, the trade can best be reached through publicity releases in trade magazines and through other paid media. Introduction by specialty product men may be necessary for highly technical items or a very unique application. After it has thus been

introduced the product is ready to be handled by the regular sales force or a distributor.


For sustained promotion of an industrial product, trade journals were suggested to stimulate inquiries; followed by specific direct mail and follow up by salesmen. Probably less than one per cent of the gross dollar sale is used for advertising and promotion.

All participants agreed that personal sales contact is a must in this field.

New and complex instrumentation and its bearing on the morale, selection, and training of personnel was the core of a discussion entitled "Factory Production — What's Ahead in Processing". With Richard Kozacka of Monsanto Chemical Co. as leader and James Cloney of General Aniline & Film Corp. as recorder, the group discussed various aspects of "automation". A major increase in the use of new and increasingly complex devices will increase productivity, and improve quality and reliability of the product. At the same time these developments will demand much more of the skill and intellect of technical and hourly personnel who will operate and maintain these new processes. Considerable additional training of engineers, technicians, operators and maintenance will be required the group forecast.

Standards of quality and cost should be at the same level as those of productivity. This was one of the conclusions reached by the "Factory Production — Finishing" round-table discussion group with Leo A. Scott, Colgate-Palmolive Co., as discussion leader and Melvin E. Kamen, Kamen Soap Products Co., as recorder. Finishing operations, of course, involve quality, cost, and volume considerations, but production personnel are geared to thinking primarily of increasing productivity and secondly of quality and cost control standards.

Because of neglect, materials handling in industry today is
(Turn to Page 161)



An acrylic copolymer with **GLOSS...**

RHOPLEX B-78

Progressive formulators of floor polishes are taking advantage of the benefits that acrylic polymers offer over hard, non-film-forming polymer emulsions. Not only do the acrylics form continuous films at room temperature, but they have superior color properties, better removability characteristics, and virtually no plasticizer or powdering problems.

Outstanding among the newer polymers is RHOPLEX B-78, a recently-developed modified-acrylic-copolymer emulsion from Rohm & Haas, which imparts exceptional gloss to both industrial and household floor polishes. In the accompanying table, compare the RHOPLEX B-78 gloss measurements with those obtained from other commercially-available acrylic floor-polish emulsions. The popularity of light-colored flooring and the problem of build-up of multiple coats of discolored floor wax on lightly-used areas makes another property of RHOPLEX B-78 important—color. RHOPLEX B-78 forms water-clear films that resist discoloration on aging, even when exposed to heat and ultraviolet light. RHOPLEX B-78 films also have high hardness—equivalent to that of shellac. Thus, this polymer emulsion imparts excellent mar

resistance properties to finished polishes. Write today for emulsion samples and technical literature including formulation data.

Emulsion used in floor-polish formulation	60° Specular gloss measured on black carrara glass
Rhoplex B-78	94
Commercial Acrylic "A"	89
Commercial Acrylic "B"	88
Commercial Acrylic "C"	76



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RHOPLEX is a trademark, Reg. U. S. Pat. Off. and in principal foreign countries.

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OR LESS



Quick, Deep, Lasting Gloss Keeps Your Polishes Popular

It takes more than a single ingredient to make a successful polish. It takes a lot of formulating skill and sound marketing decisions, too. But among all the variables, this factor remains constant: *including Dow Corning Silicones in your product pays off, literally.* This is true whether your polish is for glass, autos, furniture, appliances . . . silicone fluids improve the formulation — help increase sales.

Dow Corning silicone fluids make polishes easier to spread . . . quicker to shine-up . . . richer and deeper in gloss . . . longer lasting. Silicones repel water in a really superlative manner . . . resist spotting . . . withstand weathering and oxidation, too.

Taken together, these qualities mean less effort, less time and better results for the consumer. That in turn means a better product image for you . . . more of those all-important repeat sales. To get the maximum in consumer desire-to-buy, give Dow Corning Silicones a prominent place in your polish . . . and on your labels, too. Consumers are aware of the protection silicones provide . . . are sold on products that contain them!

Dow Corning development chemists have compiled extensive information on silicone fluids in polishes — are continually working to develop new products for new applications. For the latest and most complete information on Dow Corning Silicones for different types of polishes, contact our nearest branch office or write Dept. 2502.

Your nearest Dow Corning office is the number one source for information and technical service on silicones.



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MIDLAND, MICHIGAN

ATLANTA BOSTON CHICAGO CLEVELAND DALLAS LOS ANGELES NEW YORK WASHINGTON, D. C.

still in its infancy was the observation of the group on "Warehousing and Shipping — Mechanization to Speed Order Handling." D. D. Derricott, Food Machinery & Chemical Corp., was discussion leader, and R. E. Crowley of Colgate-Palmolive Co. was recorder. Management is not devoting sufficient time and attention to proper warehousing, shipping, and distribution facilities, the group declared. Profit dollars can be earned, it observed, through the modernization of methods and equipment.

"Marketing Household Products" was the title of a discussion group headed by Robert Kahl, Borden Foods Co., with Michael Cerra, B. T. Babbitt, Inc., as recorder. One way to determine consumer wants to achieve product acceptance, the group decided, was to find out consumer dissatisfactions with present products and then develop new products which eliminate the dissatisfactions. In discussing product promotion, the panel agreed that a promotional program is the result of an integrated effort of advertising, sales, and publicity. It should incorporate an appeal for the consumer so she will buy the product; an appeal for the trade so it will stock it and sell it to the consumer; and a selling tool for the company's salesmen to help them sell the product to the trade.

Considerations for success in diversification were outlined in the discussion group on "Product Diversification — Adjusting to Growth and Change" with Samuel L. H. Burk of Rogers, Slade & Hill, management consultants, as discussion leader.

The "Report of the Technical Advisory Council" was presented by J. David Justice, Lever Brothers Co., the morning of Jan. 22. His report reviewed the 1959 association research activities pertaining to "Detergents in Water and Sewage Treatment." It will be published in full in a future issue of *Soap and Chemical Specialties*.

Howard J. Morgens, presi-

dent of Procter & Gamble Co., presided at the group luncheon Jan. 22. Luncheon speaker Marcus Nadler, professor of finance at New York University School of Business Administration, discussed the "Economic Climate During the Next Decade." Dominating economic forces, Dr. Nadler stated, will emanate from population growth, accompanied by rising living standards, the benefits derived from research, and international economic and political developments.

Industrial Division

A seminar on "Methods of Performance Screening of Industrial Cleaners" was the highlight of the Industrial Division meeting the afternoon of Jan. 20. Clarence L. Weirich of C. B. Dolge Co. presided at the session at which the following members of the steering committee were elected:

Howard Young, Davies-Young Soap Co., chairman; Balfour J. Augst, Armour & Co., vice-chairman; Earl Brenn, Huntington Laboratories, Inc.; J. H. Clark, U.S. Sanitary Specialties Corp.; Kenneth Fulton, Beach Soap Co.; J. L. Jones, Sugar Beet Products Co.; Melvin Kamen, Kamen Soap Products Co.; G. H. Packwood, Jr., G. H. Packwood Manufacturing Co.; F. J. Pollnow, Jr., Vestal, Inc.; and Clarence L. Weirich, C. B. Dolge Co.

First seminar speaker, A. J. Burner of the Port of New York Authority, declared that "a single infallible way to determine the efficiency and suitability of a prod-

uct does not exist." Mr. Burner proposed a program for judging the merits of sanitation materials which includes written laboratory specifications; field or performance tests; and reference research.

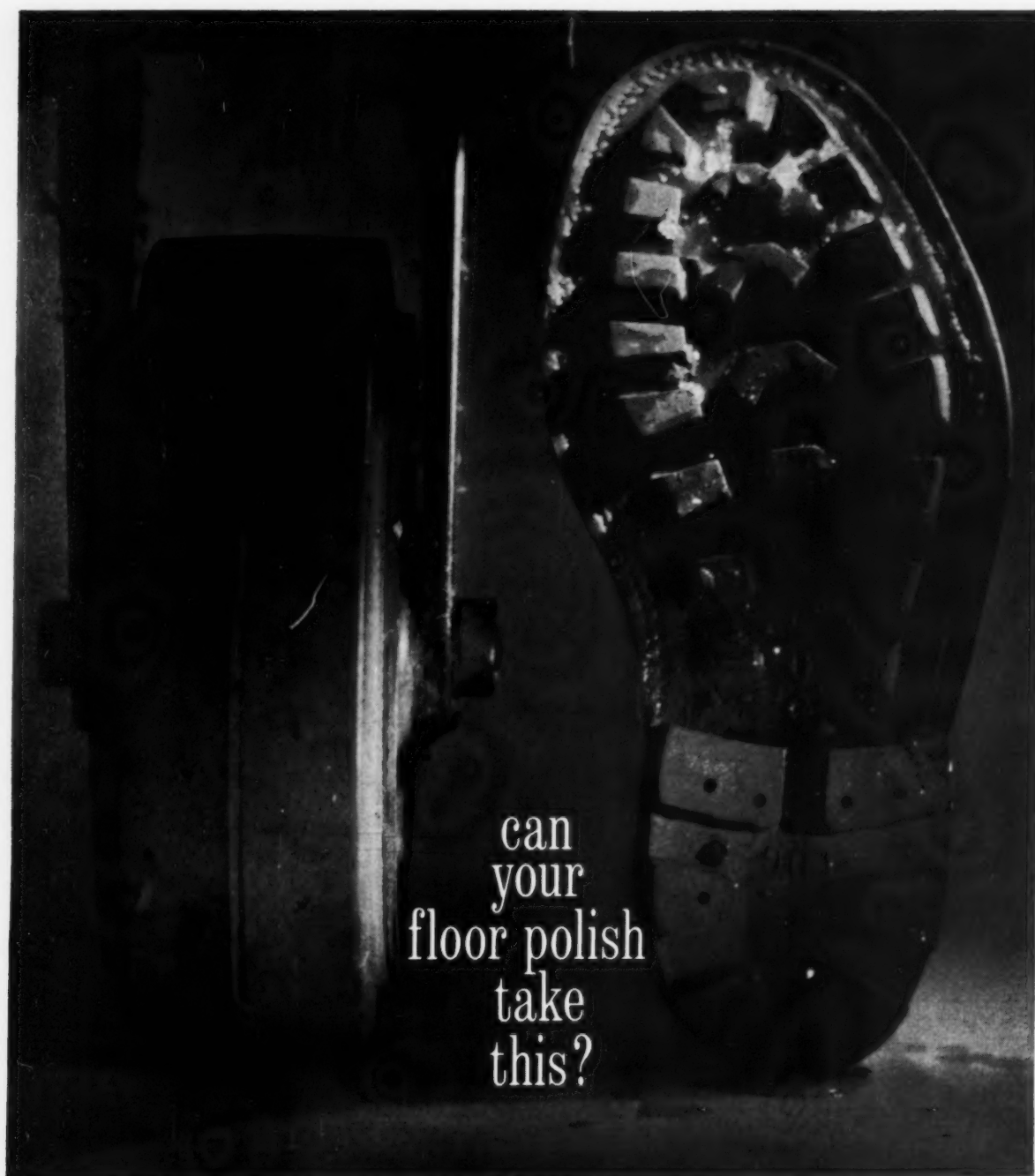
William H. Joy, American Telephone & Telegraph Co., described the activities of that firm's building operations group in the selection of cleaning materials for about 15,000 buildings having a floor space of 125 million square feet. The company has established a standardization program with quality control and uniform operational practices. Cleaning materials are divided into three classes: those where acceptability depends entirely upon conformance to technical specifications, determined by chemical analyses; those where laboratory examination is supplemented by some field testing; and those where lab testing is simply a screen and performance testing plays the major role. Using a liquid floor cleaner as an example, Mr. Joy described the standardization procedure step by step.

Problems of procurement in the U.S. Post Office Department were discussed by Edward Hupert of that agency. He cited the department's need for a qualified suppliers list and the lack of manpower that prevents establishing one. Citing his own experience in private industry, Mr. Hupert

(Turn to Page 194)

Soap meeting delegates. L. to r.: Richard P. Reavey and John Gilman of John H. Breck, Inc., Springfield, Mass.; Ednest R. Durrer, George Warren and Robert E. Horsey of Givaudan-Delawanna, Inc., New York, and Walter P. Waide of Breck.





can
your
floor polish
take
this?

There's a \$40 million market waiting for polishes that can stand the gaff of trudging shoes and trundling wheels on the floors on which America does its business.

It's not an easy market to crack, though. Some 200 polish producers are hot after this rich prize. Who will come out with the winning combinations of hardness, gloss, slip resistance, durability, rebuffability, easy removability?

If you're one of the contenders, we'd like to get in the ring with you. There's nothing like Durez resin for giving a floor polish the properties you want it to have. (This holds true whether you're standing pat with a high-wax product, or developing a polymer-type polish for the industrial market.)

Despite the many things it can do, Durez resin is one of the cheapest polish ingredients you can buy. And its stable price helps you avoid the price ups and downs of natural materials.

We've made thousands of resin formulations, and we keep developing new ones all the time. To cash in on the newest and best in resins, many floor-polish manufacturers find it good business to check with us from time to time. If you think a Durez resin might help you with a polish formulation problem, why not write us about it?

If you prefer to buy fusions of resins and wax, you can get them, made with Durez resins, from many specialty processors. Ask us for their names.

DUREZ PLASTICS DIVISION

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HOOKEER CHEMICAL CORPORATION



News...

PEOPLE • PRODUCTS • PLANTS

Marrett J. Osborn Dies

• • •

Lockwood Horda Leaver, Ltd.

• • •

Colgate Buys S. M. Edison

• • •

Click Forms Subsidiary

Samuel G. Johnson, formerly service products division vice-president of S. C. Johnson & Son, Inc., Racine, Wis., was recently appointed vice-president and regional director for Europe, Africa and the Near East. The appointment is part of an effort to expand overseas.





An Advance in Stability

GIVAUDAN'S MENTHANYL ACETATE!

Menthanyl Acetate, Givaudan's new perfume ester, is the latest contribution to the development of stable perfumes for soaps, detergents and cosmetics.

Coupled with its unusual stability, Menthanyl Acetate has a clean, refreshing odor with good strength and body which makes it an ideal aromatic for many popular types of perfumes. Practical to use, domestically produced Menthanyl Acetate is moderately priced and readily available.

Although Menthanyl Acetate lends itself well to the creation of many bouquets, its use in artificial bergamot, petitgrain, and lavender is specifically suggested by its resemblance to linalyl acetate.

Samples and our technical data sheet are available upon request.



GIVAUDAN-DELAWANNA, INC.

321 West 44th Street
New York 36, N. Y.

SOAP and CHEMICAL SPECIALTIES

News

Lockwood Heads Lever, Ltd.

John C. Lockwood was named president of Lever Brothers, Ltd., Toronto, Canada, recently.



John C. Lockwood

Mr. Lockwood joined the Unilever organization in 1936 and spent the next two years in training programs in England and Europe. After World War II, he came to Canada as advertising manager of Pepsodent Co. of Canada, then newly acquired by Lever, and later became marketing director. Successively, Mr. Lockwood was appointed marketing director for World Brands, Ltd., another Lever subsidiary, then sales director and later marketing director for the Lever company. Most recently, he served as managing director of Lever S.A. in Brussels.

— ★ —

Merritt Osborn Dies

Merritt J. Osborn, 80, founder and board chairman of Economics Laboratory, Inc., St. Paul, Minn., died Jan. 16 in that city after a long illness. Mr. Osborn began the firm in 1923 with the manufacture of "Soilax," a multiple purpose detergent, and had one person in his employ. Today the company has about 1,000 employees and produces dishwashing detergents and other cleaning com-

pounds for household, commercial, and industrial use. At one time a sales representative for wholesale drug firms, he later operated automobile truck sales agencies and was advertising and sales manager for a brewing firm when he entered the detergent manufacturing business. He was succeeded as president in 1950 by one of his sons, E. Bartley Osborn.

— ★ —

Click Forms Subsidiary

Click Chemical Corp., Mount Vernon, N. Y., recently formed a subsidiary corporation in Cartersville, Ga., called Click Southern Chemical Corp., it was announced last month by Millard Fisher, Click president. Paul Hodges has been named general manager of the new firm. Click Southern's plant is a one-story, concrete block building with 12,000 square feet of floor space. The company manufactures the full line of Click para and naphthalene moth and odor control products and is developing specially designed packages for the southern market. The new subsidiary also will specialize in private label urinal blocks and toilet bowl deodorants for jobbers. Peter I. Clough is executive vice-president of the parent company.

— ★ —

Colgate Buys S. M. Edison

Acquisition of the S. M. Edison Chemical Co., Chicago, through an exchange of stock was announced last month by Colgate-Palmolive Co., New York. Edison's principal product is "Dermassage," a medicated body lotion. The company also manufactures surgical instrument cleansers and other specialty products. Edison was founded in 1932 by S. M. Edison, who continues to be associated with the firm, which is expected to be operated as a wholly owned subsidiary of Colgate.

Bon Ami Appoints Webb

The appointment of Olen R. Webb as sales manager for the industrial division of Bon Ami



Olen R. Webb

Co., New York, was announced last month by R. Paul Weesner, president. Mr. Webb was formerly general manager of the General Contracting Co., in Dhahram, Saudi Arabia.

— ★ —

Foreign Program Expanded

Several assignments were made recently by S. C. Johnson & Son, Inc., Racine, Wis., as part of a world-wide program to expand its overseas operations, it was announced last month by Howard M. Packard, president. Samuel C. Johnson, who has served as new products director and as service products division vice-president, has been named vice-president and regional director for Europe, Africa, and the Near East. Serving with Mr. Johnson under A. O. Fisher, international vice-president, are Richard O. Lang, new international administrator; Harold C. Mason, director of international finance; and John J. Louis, Jr., director of international marketing. Overseas subsidiaries of the company account for more than 20 per cent of its consolidated gross sales volume, according to Mr. Packard.

Airkem to Equip HOPE Ship

An environmental health control program will be established on the hospital ship, *S. S. Hope*, by Airkem, Inc., New York, it was announced last month by W. H. Wheeler, Airkem president, and William B. Walsh, president of the People-to-People Health Foundation, the organization sponsoring the Health Opportunities for People Everywhere (HOPE) project. The hospital ship, as part of the project, is scheduled to sail for Indonesia from San Francisco this spring. Airkem's program is designed to solve maintenance and odor problems aboard the ship through cleaning and disinfecting to meet the same standards found in leading hospitals.

★

Keever, Beach Consolidate

Consolidation of the sales organizations of Keever Starch Co., Columbus, O., and Beach Soap Co., Lawrence, Mass., was announced last month by National Industrial Products Co., Columbus, parent company which has acquired Beach's common stock. All Beach and Keever products are now being marketed through the Keever-Beach Division of Keever Starch Co., according to James F. Kurtz, president of National Industrial. With the consolidation it was reported that sales territories and jobber representation have been realigned.

Robert W. Allen, Keever vice-president, is in charge of all



W. H. Wheeler, left, president of Airkem, Inc., New York, presents outline of environmental health control program his company will put into effect on hospital ship, *S. S. Hope*, to William B. Walsh, president of the People-to-People Health Foundation. Dr. Walsh's organization is sending the ship to the Far East this spring as part of the Health Opportunities for Peoples Everywhere (HOPE) national project. Model of the ship is in foreground.

sales and is assisted by Edward C. Regan, formerly of Beach. Kenneth E. Fulton, president of Beach, will join Keever in an executive capacity but remains in Lawrence in charge of the company's operations.

Beach Soap has been in business for 130 years and manufactures soaps, detergents, bleaches, water softeners, and fabric softeners for commercial laundry and industrial use. Keever was founded in 1893 and produces commercial starches, soups and press pads for laundries and institutions and other specialized starches for the paper, food, and baking industries.

Samter Chemo Puro V.P.

Werner Samter has been appointed vice-president of production and research for Chemo Puro Manufacturing Corp., Newark, N. J., recently acquired subsidiary of Century Chemical Corp., New York, it was announced last month by Theodore S. Hodgins, Century president. Chemo Puro produces fine chemicals for the cosmetic, drug and pharmaceutical industries as well as animal feed supplements and food additives. Mr. Samter has been with Chemo Puro since 1947 and prior to that was with Reduction and Refining Co., Newark, N. J.

Robert W. Allen



Kenneth E. Fulton



James F. Kurtz



Yardley Names a Director

Louis Brennesholtz, manager of operations for Yardley of London, Inc., New York, has been appointed a director of the company, it was announced last month by Philip C. Smith, board chairman. Mr. Brennesholtz fills the vacancy created by the retirement of Edwin B. Miller, former secretary-treasurer. Manager of operations for the past three years, supervising production and distribution facilities, Mr. Brennesholtz joined Yardley 12 years ago as purchasing agent.

James Rogers Dies

James E. Rogers, 51, manager of the detergents and specialties sales division of Procter & Gamble Co., Cincinnati, died Jan. 5. With the company since 1931,

Mr. Rogers moved to the Syracuse, N. Y., district in 1934 where he became a section salesman. Later he was appointed office head salesman and unit manager of the district. In 1941 Mr. Rogers was named district manager in Philadelphia and ten years later became manager of the detergents and specialties sales divisions.

GAF Moves Office

The home office of General Aniline & Film Corp. was moved late last month to larger quarters in the new Time and Life Building at 111 West 50th St., New York. Previously located at 230 Park Ave., the company now occupies the 44th floor of the recently completed building. The new telephone number is JUDson 2-7600.

Dr. Richard B. Wearn, left, director of research and development for the Household Products Division of Colgate-Palmolive Co., New York, explains use of plastic spray tower donated by his company to the University of Delaware to three of the school's officials. They are Dr. Robert L. Pigford, chairman of the department of chemical engineering; Dr. Edward W. Comings, dean of engineering; and Dr. Carl J. Reese, provost. Tower was made especially for purpose of studying air flow under various conditions and has several unique design features. It was first used as a working model in the design of more efficient commercial soap and detergent spray drying towers. Tower will be used in connection with a special problems course for undergraduate students studying flow theory at University of Delaware.



CSMA Golf Outing Set

The first annual golf outing of the Chemical Specialties Manufacturers Association has been scheduled for June 16 at the Knollwood Country Club, White Plains, N. Y. The date was set at a meeting of the CSMA golf committee last month. A second outing is planned in the Chicago area for later in the season. Next meeting of the golf committee will be Mar. 3rd. Frederick G. Lodes of Lodes Aerosol Consultants, Inc., New York, is committee chairman. Other members of the committee are:

C. E. Alderdice, Jr., Bell Co.; L. G. Cannella, Continental Can Co.; John Gabrielsen, Avon Products, Inc.; Earl Graham, Clayton Corp.; R. J. Hamilton, General Aniline & Film Corp., in charge of publicity; F. C. Hitchings, General Chemical Division, Allied Chemical Corp.; R. E. Horsey, Givaudan-Delawanna, Inc.; John Hulten, Union Carbide Chemicals Co.; George Kirby, Fairfield Chemicals division, Food Machinery and Chemical Corp.; Stanley Kreps, Crown Cork & Seal Co.; Michael Lemmermeyer, Aromatic Products, Inc.; Ira P. MacNair, MacNair-Dorland Co.; Russell McGhie, Colgate-Palmolive Co.; A. A. Mulliken, CSMA; Leonard J. Oppenheimer, West Chemical Products Co.; C. S. Stephens, American Can Co.; Robert W. Svendsen, Chase Products Co.; and Charles Wirth, E. I. du Pont de Nemours & Co.

Avon Sales Increase

John A. Ewald, president of Avon Products, Inc., New York, was reported early this month as stating that the company's over-the-counter volume was "better than 18 per cent" above the \$120,111,366 in 1958. He indicated that the firm's net earnings would be in keeping with the increase in sales. In 1958 profits were \$10,733,541, or \$1.11 per share. Sales in Avon's foreign operations were about \$8 million, Mr. Ewald said, compared with \$5 million in 1958. The company began operations last year in West Germany, Brazil, and England and expects to distribute products from a Canadian plant by early 1961. During the past five years, operations have been started in four Latin American countries.

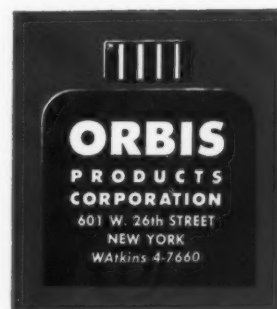


IT SEEMS STRANGE

You have a right to think this **Potto** hard to believe in. He is, except to Africans. You wouldn't expect, though, that anybody with an eye for economy wouldn't know, by now, that Orbis Scents keep quality way up and costs way down.

Good products, good profits mean Orbis. (Want sample scents? Send your letterhead.)

USE ORBIS SCENTS, DOLLAR-STRETCHERS



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PILOT ABS-99 builds better end products because ABS-99 is a better product to start with. ABS-99 is the highest dodecyl benzene sulfonic concentrate commercially available: 98% concentrated with extra activity—14% more active ingredient than ordinary 88% pure sulfonics.

ABS-99 is purer. *So pure, in fact, that it may be kept in plain steel containers!*

Pilot ABS-99 offers greater compatibility with oils and other organic substances; it prevents precipitation because of its low sulfate content, lowest of any similar material on the market.

The uniqueness of this new standard of purity is a result of Pilot's *cold processing*: built in are high detergency and foaming character—stabilized are its light color, viscosity and low odor. You'll save, additionally, on perfuming.

Pilot ABS-99 adds greater flexibility to your detergent formulations, for it is the basic building block for all sulfonic detergent products. So, for superior products—start with the best. Write for technical literature and samples right now.



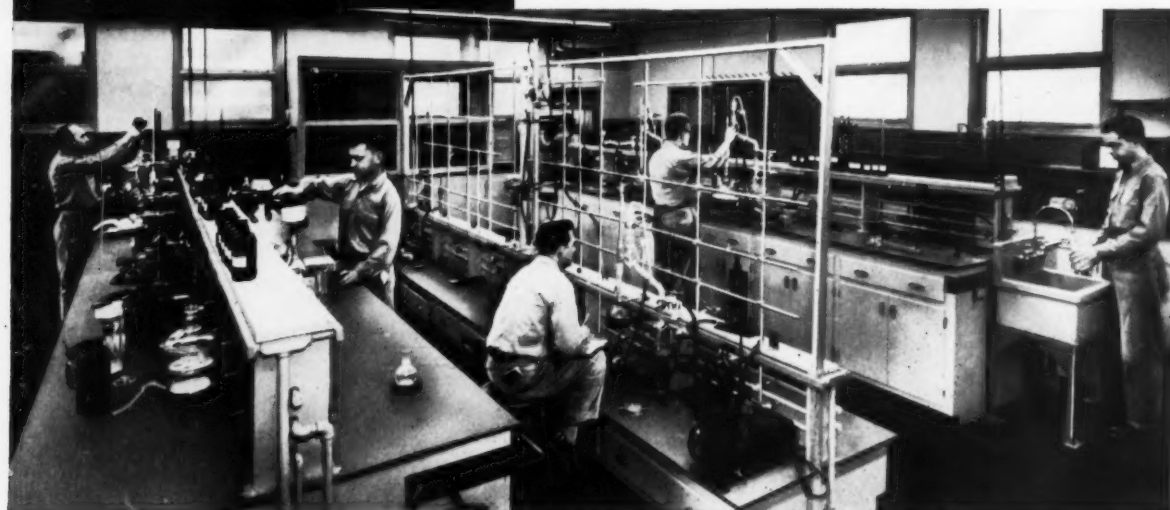
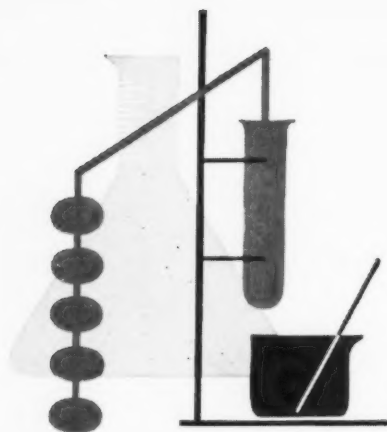
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Good shellac only *begins* with the top-grade seed lac that Mantrose imports. For users today require "individualized" shellacs, modified to fit exacting processing or finishing conditions.

That is why America's leading shellac users call on Mantrose research facilities to "design" *new* shellacs . . . to build additional advantages and controlled, predictable processing characteristics into the natural product . . . to enhance still further the unduplicated superiority of genuine shellac.

Chemists and consultants from the Mantrose Laboratories will be glad to discuss how a standard Mantrose shellac, or a "new" shellac, can better suit *your* processing requirements. There is no charge for this service.

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New specialties plant in Atlanta, Ga., of Pennsalt Chemicals Corp.

Pennsalt Adds Plant, New Research Unit

THE new \$500,000 plant in Atlanta, Ga., of Pennsalt Chemicals Corp., Philadelphia, for blending, packaging and warehousing chemical specialties, will go on stream this spring. The one-story plant will be the seventh unit devoted to production of Pennsalt specialties added in the past five years. The newest Pennsalt unit is being constructed on a 10 acre site served by a direct rail spur and express highway. The plant will provide production and warehousing facilities for Pennsalt's brand-name chemical products used by dairies, commercial laundries, aerosol loaders, metal processers, etc.

More recently Pennsalt revealed it has purchased a 50-acre site in the King of Prussia (Pa.) Park for construction of a technical center, which will ultimately represent an investment of \$6,000,000.

In announcing the new purchase, William P. Drake, Pennsalt president, said the site will permit an orderly expansion of Pennsalt's growing needs for technical facilities; for research, development and technical service. Currently, Pennsalt operates technical facilities at Wyndmoor and Devon, Pa.

Plans call for a campus type arrangement featuring a central mall (see cut). The first building in the complex will be a two-story laboratory occupying approximately 21,000 square feet. This will be devoted to product development

and technical service on Pennsalt's proprietary chemicals for the laundry and dry cleaning trade, metal working industry, food and dairy plants, as well as consumer products for farm and home. "Isotron" aerosol propellant and refrigerant technical group will also occupy expanded facilities in this new building. Construction now under way is expected to be completed before the end of this year.

Breck Considers Site

John H. Breck, Inc., Springfield, Mass., is considering a site close to its plant and warehouse in West Springfield for the construction of an office building. In explaining the company's interest

in the land, John H. Breck, Jr., executive vice-president, noted that several departments are in different buildings and that there was a need for consolidation. When the West Springfield plant and land were bought, the company anticipated that it would provide for expansion needs for some time, Mr. Breck stated, but because of rapid expansion there is no desirable land on this original tract for an office building.

Texize Sales Increase

Sales of Texize Chemicals, Inc., Greenville, S. C., for the year ended Oct. 31, 1959 amounted to \$16,136,186, compared with \$10,245,204 in the previous year. Net income was \$615,311, or \$1.81 per share, compared with \$309,050, or 93 cents per share in 1958.

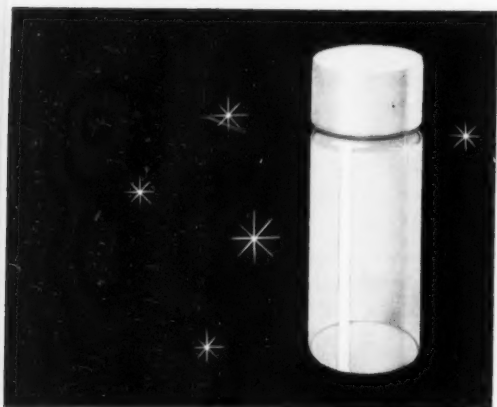
Voss Shulton Coast Rep.

The appointment of Voss Co 2631 Southwest Dr., Los Angeles 43, as sales representatives for the fine chemicals division of Shulton, Inc., New York, was announced last month by Raymond G. McCue, division sales manager. Voss is the exclusive sales agent for the entire Shulton line of industrial chemicals in 11 western states including California, Oregon, Washington, Nevada, Idaho, Montana, Wyoming, Utah, Colorado, New Mexico, and Arizona.

Architect's rendering of proposed Pennsalt technical center in King of Prussia, Pa.



*A little
extra everything
... except price*



**EMERSOL[®]
OLEIC ACIDS**

Emersol 233 LL Elaine, with its 5% maximum polyunsaturants content, is just a little better than other oleics in *many* critical performance characteristics. But together, these differences can add up to a significant improvement in your product performance—lighter color, blander odors, and unmatched resistance to deterioration by aging.

And, since Emersol 233 is competitively priced, it costs you no more to provide *your* products with these competitive edges at the sales level.

Fatty Acid Sales Department

Vopcolene Division, Los Angeles—Emery Industries (Canada), London, Ontario



Carew Tower, Cincinnati 2, Ohio

Industries, Inc.

Export Department, Cincinnati

New Fairfield Folder on "Pyrenone"

A NEW 20 page brochure, "Pyrenone" Facts Finder, has just been published by Fairfield Chemicals Division of Food Machinery and Chemical Corp., 441 Lexington Avenue, New York 17.

"Pyrenone" is Fairfield's trade name for pyrethrins synergized with piperonyl butoxide.

Intended as a guide for formulators, pest control operators, entomologists, and others interested in the problems of insect control the booklet includes an identification chart which serves as an index to diagrammatic drawings and description of 33 different pests.

An introductory chapter gives the basic characteristics of the different types of aerosols and pressurized sprays, indicating in each instance their general area of usefulness. Individual chapters are devoted to concentrated metered aerosols and to household liquid sprays and dusts. Suggested formulations and information on performance are included. Extensive chapters deal with dairy and livestock sprays and with insect control in food handling and processing establishments. In these applications the favorable toxicological properties of "Pyrenone" are a particular advantage. A section devoted to garden sprays, pet sprays and other specialty products carries an extensive list of formulations.

The highly topical subject of insect resistance is covered in a report of Fairfield's national survey of housefly and roach resistance, including maps giving a state by state picture. Formulae for control of resistant insects are supplied.

A disc calculator is included in the booklet which gives specifications of Fairfield concentrates and provides the percentage by weight of pyrethrins and piperonyl butoxide when 12 different "Pyrenone" concentrates and five other concentrates are diluted in ranges from 0.1 per cent to 20 per cent.

For simplicity's sake all formulations shown give ingredi-

ents by generic or trade names. A glossary is provided which shows the chemical descriptions or compositions of these pesticidal compounds. This glossary is a very useful feature from the formulator's point of view and for anyone responsible for product labeling.

The booklet may be pur-

chased from Fairfield at \$1.00 per copy.

Monsanto Division to Move

Administrative and office employes of Lion Oil Co., Division, El Dorado, Ark., Monsanto Chemical Co., St. Louis, Mo., will move to St. Louis in mid-1961, it was announced last month by Charles Allen Thomas, president.

*A Symbol of Quality
for Seventy-five Years*



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Second Scented Cinema Opens on Coast

A SECOND motion picture film, the showing of which is accompanied by the dissemination of appropriate odors, made its debut in Hollywood late in January. The new film, "Scent of Mystery," a Mike Todd, Jr., murder mystery, in addition to having the usual attributes of color, wide screen, and sound, is scented by a process known as "Smell-o-Vision." Odors

of perfume, mint, wood shavings, roses, pipe smoke, shoe polishes and even horses are piped into the theatre at fixed intervals during the showing of the film via valves beneath the seats.

Also showing in Hollywood is the original scented film, "Behind the Great Wall," which had its premier in New York in December. The perfuming process used for

this full color, wide screen, four-track stereophonic sound motion picture of life in Red China is designated "Aroma-Rama." The process was developed by Charles Weiss, a former publicity man, in collaboration with several industrial concerns, including Rhodia, Inc., New York perfuming materials firm. Rhodia, an affiliate of Rhone-Poulenc, a major French manufacturer of chemicals, provides the scents for "Aroma-Rama." The perfuming materials for "Behind the Great Wall" are released by cues delivered automatically from the projector and the entire timing mechanism functions without any change from normal theatre operation, according to Walter Reade, Jr., president of the firm bearing his name. Mr. Reade is also chairman of the board of Continental Distributing, Inc., distributor of "Behind the Great Wall."

"Aroma-Rama," according to Reade, makes it possible to introduce fragrances and aromas through the air distribution system of a theatre. The process has three major components: a triggering and timing device, specially developed scents, and an electronic purifier. The scent containers are so designed that they release their fragrances by automatic cue with predetermined intensity. The released scent is carried rapidly and simultaneously to all sections of the auditorium by the air distribution system. The electronic air purifier cleans the air after each aroma injection.

Heretofore, quickly clearing the air of one scent before another could be dispensed has been a major stumbling block to the use of perfumes for such purposes. The Rhodia scents used are said to be compounded on a fast evaporating base and can be sensed only as long as they are being circulated. Where cues for new odors come in rapid succession, any traces of preceding fragrances are eliminated instantaneously by the "Statronic" element, Reade states. The air purification system, the development

chemicals on the move... polyethylene glycols

Many applications are served by Poly-G polyethylene glycols. As intermediates, solvents and humectants, they are important in the manufacture of surfactants, resins, pharmaceuticals, textiles, rubber and cellulosic materials.

The molecular weights of the products—lowest 200, highest 1500—indicate the range of properties. You can

choose the Poly-G which meets your requirements most exactly. And you can count on prompt deliveries from distributors' stocks and the plant at Brandenburg, Kentucky.

If your operations require polyethylene glycols of consistent high quality, write today for technical data sheets on the Poly-G series.

Olin Mathieson

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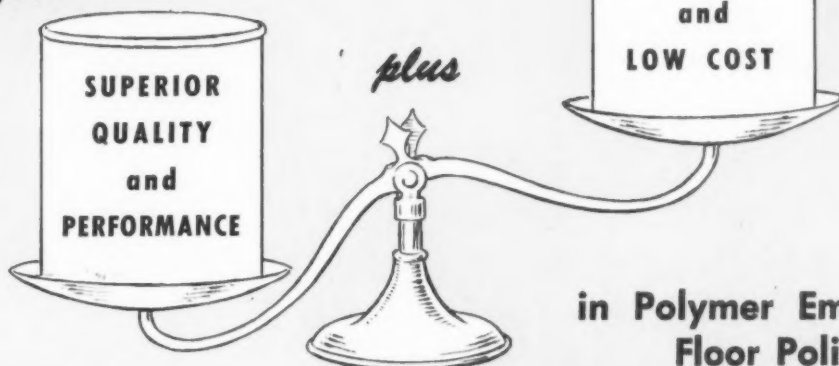
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You get...



**in Polymer Emulsion
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by just adding COLD WATER to

SIMPLEX-40

**... THE REVOLUTIONARY FINISHED POLISH
CONCENTRATE AT 40% SOLIDS!**

FLEXIBLE SIMPLEX-40 GIVES BIG LIFT TO WAX CHEMIST

This basic film forming polymer can be modified to suit individual requirements.

DOUBLE CHECK THESE ADVANTAGES OF SIMPLEX-40!

- ✓ Eliminates formulating problems... quality control headaches.
- ✓ Assures finishes of superior quality and performance — all raw material ingredients tailor-made to fit product.
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- ✓ Minimizes inventory requirements.
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SIMPLEX-40 BOOKLET, giving complete information... with dilution formulas and how-to-use detailed, available upon request.

Mail this coupon TODAY to get **FREE BOOKLET and SAMPLE of SIMPLEX-40.**

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Please send:

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Buyer's Name _____

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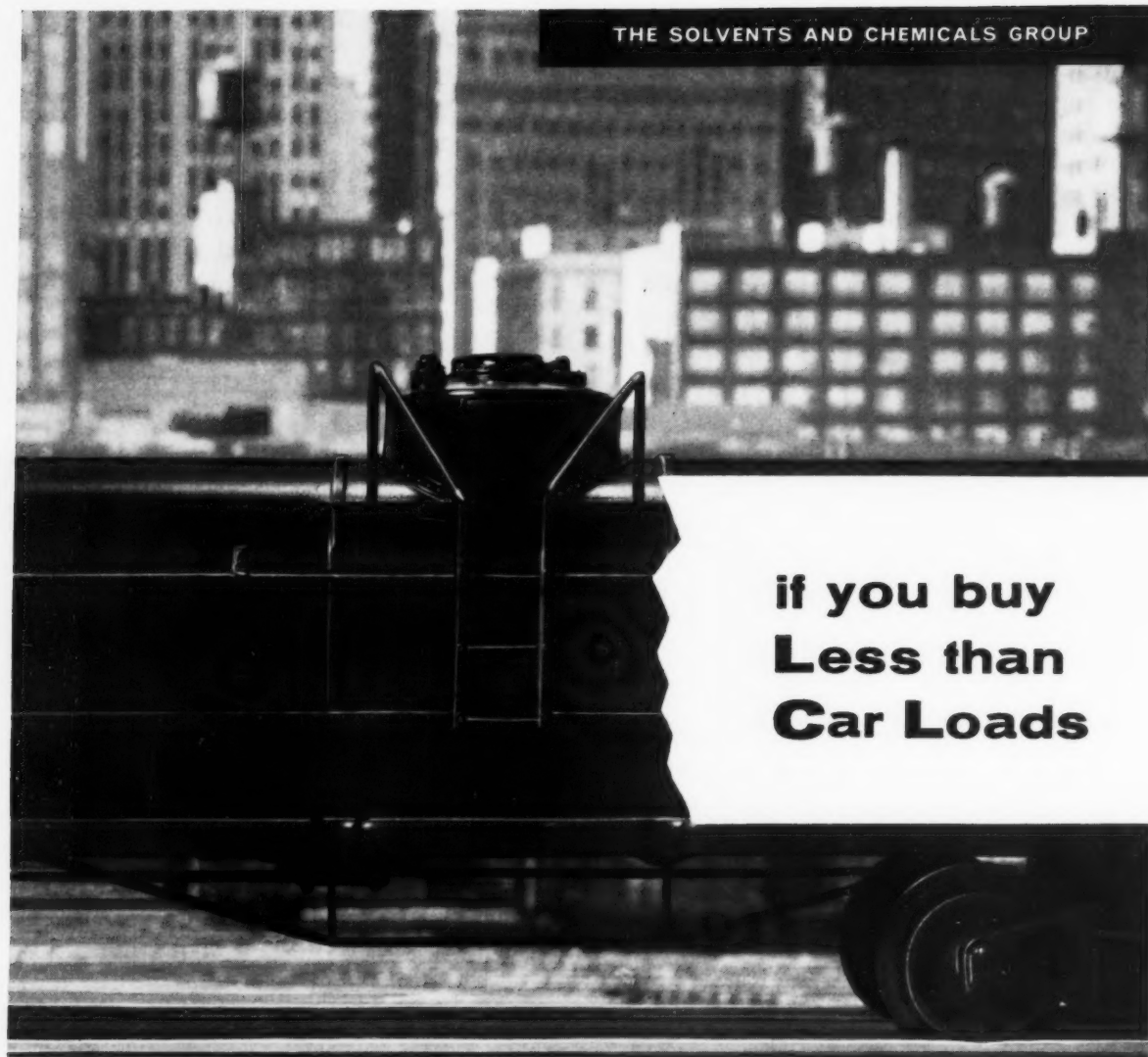
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Aliphatic Petroleum Naphthas, Alcohols and Acetates, Alkanolamines, Aluminum Pigments, Petroleum and Coal Tar Aromatic Solvents, Chlorinated Paraffins, Chlorinated Solvents, Glycerine, Glycols and Glycol Ethers, Ketones and Esters, Plasticizers, Resinates, Rosins, Synthetic Resins, Terpene Solvents, Waxes.



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Dallas, FEderal 1-5428 • Detroit, WALnut 1-6350 • Erie, Glendale 6-3951 • Fort Wayne, Anthony 0213
Grand Rapids, CHerry 5-9111 • Houston, ORchard 2-6683 • Indianapolis, MEIrose 8-1361 • Kansas City, CHestnut 1-3223
LaCrosse, 2-3011 • Louisville, EMerson 8-5828 • Milwaukee, GRreenfield 6-2630 • New Orleans, VEron 3-4666
Rochester, LOcust 2-5980 • St. Louis, GARfield 1-3495 • Sante Fe Springs (Los Angeles) UNiversity 4-7711
Toledo, JEFFerson 6-3771 • Windsor, Ontario, Clearwater 2-0933

of American Statronic Corp., is a patented electronic precipitator which is introduced among the baffles and filters of the theatre's air control system.

"Behind the Great Wall" calls for approximately 27 odors ranging from exploding firecrackers, which proved to be the most troublesome, to flowing water, which does not have a definite odor.

Motion pictures for which "Aroma-Rama" may be adapted should, according to Mr. Reade, be in color, have novelty value and have an exotic quality.

A rather interesting footnote to the development of "Aroma-Rama" is the fact that all publicity releases relating to the process are sent out by the Reade organization perfumed.

Gatewood in Barrett Post

The appointment of Wesley E. Gatewood as director of field sales for the Barrett Division of Allied Chemical Corp., New York, was announced recently by G. Peter Oldham, vice-president of marketing. Mr. Gatewood joined Barrett last year as director of sales training and promotion after 12 years with Armstrong Cork Co., Lancaster, Pa., where he last served as assistant sales manager of the Philadelphia district.

Correction

In reporting the change in name of Universal Spray Can Corp., New York, to Uni-Wax Aerosol & Chemical Corp., in the November issue of *Soap & Chemical Specialties*, we inadvertently referred to Universal as "National Spray Can Corp." It was also stated in error that Norman Jay had founded and was president of National. Mr. Jay, of course, founded and was president of Universal Spray Can Corp. Harry Richards is president and founder of National Spray Can Filling Corp. of Brooklyn. Harry Schneider is vice-president. Their firm does all types of pressure and cold filling of aerosol products.



Robert E. Horsey, vice-president and director of sales for Givaudan-Delawanna, Inc., New York, was elected president of the Essential Oil Association of U.S.A. at the annual meeting, Jan. 8, at the Savoy-Hilton Hotel, New York. Other officers elected are: first vice-president, E. Langenau, Fritzsche Brothers, Inc.; second vice-president, F. F. Dittrich, Ungerer & Co., secretary-treasurer, E. Manheimer, J. Manheimer. Selected to serve on the executive committee are: P. J. Coutin, Coutin Associates; V. G. Fourman, Syntomatic Corp.; F. K. Goudsmit, van-Ameringen-Haebler Division, International Flavors & Fragrances, Inc.; Gert Keller, Schimmel & Co., retiring EOA president and B. Polak, Polak's Frutal Works, Inc.

Wyandotte Expands Plant

Completion of an expansion program at its Atlanta, Ga., plant was announced last month by Wyandotte Chemicals Corp., Wyandotte, Mich. The plant manufactures the complete line of cleaning and sanitizing products of the company's J. B. Ford Division, according to Ford Ballantyne, Jr., division general manager and vice-president of Wyandotte. Customers in the entire southeastern area of the country are currently being serviced from the Atlanta plant.

New Liquid Cleaner

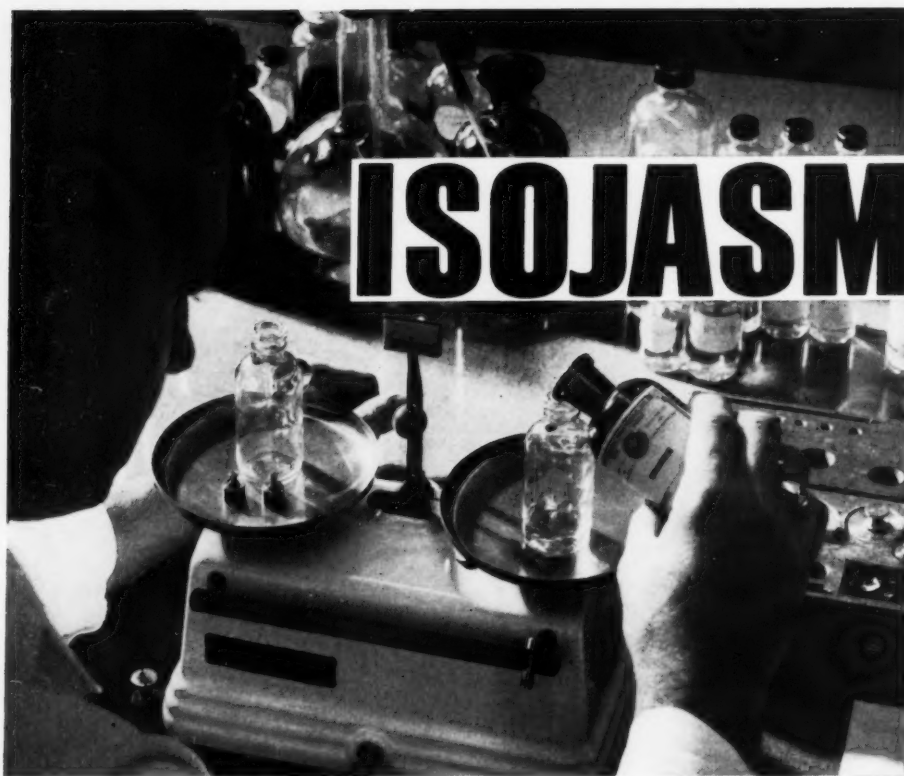
An all-purpose industrial liquid cleaner called "Turco Plaudit" was developed recently by Turco Products, Inc., Wilmington, Calif. Reported to be mild and neutral, the product is said to be safe for hands, painted surfaces, upholstery and other easily damaged surfaces. It is being used in steam, emulsion, immersion, ultrasonic, and wipe-on cleaning operations.



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Although a beautiful product and long known for its remarkable power and lift, ISOJASMONE's use in modern perfuming has been limited by its high cost. Today, price is no longer a deterrent to its highly advantageous use in the perfuming of soaps, toiletries and cosmetics. New and vastly improved techniques of manufacture have enabled us to slash the price of this intriguing ketone to the point where it can be offered in any desired quantity at a price substantially below that of any similar product. And when it comes to purity and uniformity, our ISOJASMONE is simply without rival—as those who have used it will attest. We sincerely believe this product at its current price is one deserving of your most serious consideration. A FREE trial sample may be had by writing:



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Branch Offices and *Stocks: Atlanta, Ga., Boston, Mass., *Chicago, Ill., Cincinnati, Ohio, Greensboro, N. C., *Los Angeles, Cal., Philadelphia, Pa., San Francisco, Cal., St. Louis, Mo., Montreal and *Toronto, Canada; *Mexico, D. F. and *Buenos Aires, Argentina. Factories: Clifton, N. J. and Buenos Aires, Argentina.



Soap Firms' Commercials "Deceive", FTC Says

TWO major soap companies were charged by the Federal Trade Commission with "deceptive demonstrations on television and other media in the promotion of two of their products. The advertising for "Palmolive Rapid Shave", a shaving cream made by Colgate-Palmolive Co., New York, was cited as "deceptive" by the F.T.C. The offending commercial shows a hand holding a razor and shaving what is purported to be a piece of dry sandpaper to which the shave cream has been applied. According to the F.T.C., the "misleading implication here is that the preparation's 'moisturizing' action makes it possible immediately to shave off the sandpaper's rough surface, and that the demonstration proves the product's 'moisturizing' properties in actual use for shaving."

Since the sandpaper is a "mock-up" made of glass or "Plexiglass" to which the sand has been applied the F.T.C. contends proof is not given for the claim of a "moisturizing" effect.

Colgate has answered the complaint by stating that "Palmolive Shave Cream" will actually "moisturize" the sandpaper as claimed, but that the substitute materials are used on television commercials because they photograph better.

Lever Brothers Co., New York, received a formal complaint last month from F.T.C. because of a television commercial which purports to show that "Pepsodent" toothpaste removes yellow smoke stains from the teeth.

An additional complaint was lodged against Colgate for its advertising of "Colgate Dental Cream" containing "Gardol". The F.T.C. charged that newspaper and magazine advertising and television commercials falsely stated that the dentifrice formed a "protective shield" around teeth, giving users "complete protection against decay."

In answer the company said that none of its advertising, "When

read or viewed in its entirety", had made the alleged representations "directly or by implication."

Ted Bates & Co., New York, Colgate-Palmolive Co.'s advertising agency for "Palmolive Rapid Shave", placed full page advertisements in several New York newspapers, shortly after the issuance of the F.T.C. complaint, in which the agency asked a number of questions of Earl W. Kintner, F.T.C. chairman. The advertisement pointed out the technical difficulties involved in reproducing on television screens certain items advertised. Because of the impossibility of showing white as white on television and substituting blue instead, the Bates agency asked the F.T.C. chairman if this constituted misrepresentation. The agency pointed out that eventually the courts will provide the answer as to whether or not substitution for technical reasons constitute deceiving the public. In the meantime, Ted Bates & Co. asked Mr. Kintner to lay down rules covering such situations.

The day following the issuance of the F.T.C. complaints against Colgate and Lever Brothers, S. L. Mayham, executive vice-president of the Toilet Goods Association, issued a statement in which he reminded members of his association that "on numerous occasions over the past few years, I have personally warned the industry that a check on its advertising methods and claims by government officials would take place."

Mr. Mayham pointed out that the "recent so-called 'Television Scandals' have brought this matter to the fore again." As a result, "pressure on the Federal Trade Commission is being exerted from many sources in an effort to make the commission work faster on advertising claims of all industries. This pressure is also now strongly developing from the House of Representatives and the Senate and the Trade Commission is peculiarly susceptible to pressure

from these bodies since it must secure its appropriation from them," Mr. Mayham stated.

The TGA executive vice-president urged that both member and non-member firms avail themselves of the services of the Board of Standards of TGA for a "pre-check" of advertising claims and programs as well as labeling. The board can also scan television spots and commercials in New York, Mr. Mayham said. The operation is secret, and no competitor will know anything about it, not even the fact that copy has been submitted for review, Mr. Mayham declared. He added that, "No labeling or advertising copy which we have reviewed has ever been made the subject of a complaint by either the Food and Drug Administration or the Federal Trade Commission." The service has been in operation for over 20 years, Mr. Mayham added.

In commenting on the current situation regarding advertising and the Federal Trade Commission, Mr. Mayham predicted that the "situation is likely to become more acute and to continue for some time. It is not something in my personal opinion that will die down immediately."

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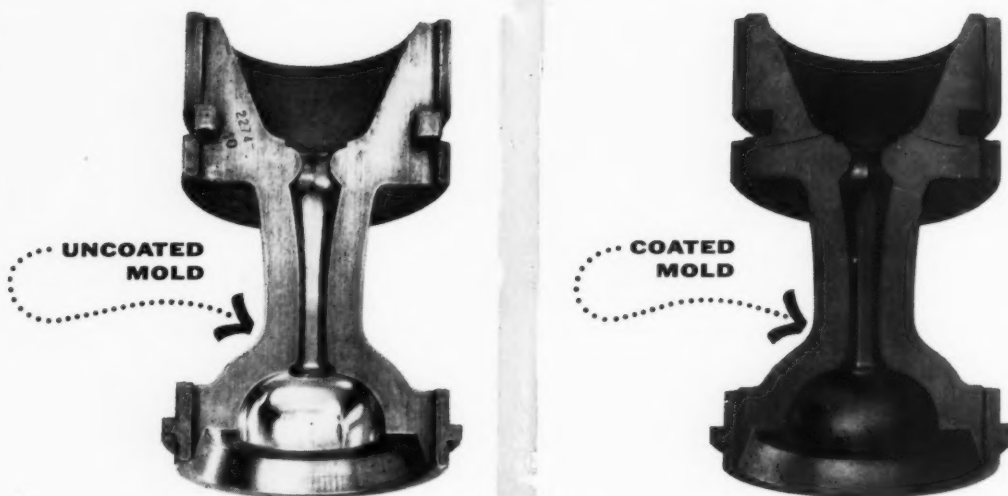
Western Traces Progress

An unusual, file type folder reporting new developments in the first six months of operation of Western Petrochemical Corp., New York, and its two divisions, Warwick Wax Division and Polymer Division, was distributed last month. Western Petrochemical, headed by Maurycy Bloch, as president, was formed as an independent company in April, 1959. Previously the organization had operated as the Warwick Wax Division of Sun Chemical Corp., with Mr. Bloch as manager.

The new folder covers such subjects as new policies, new services, new sales organization and price schedule, new personnel, new plant additions, new laboratories, new polymer division, new products and new publications.

Another new development using

B.F. Goodrich Chemical *raw materials*



Glas-Mol is manufactured by Delos M. Palmer & Associates, Toledo, Ohio, using Carbopol 934. This mold release eliminates fumes and fire hazard, and increases glass production rates by preventing wetting of glass to molds, reducing defects, and reducing mold maintenance. B.F. Goodrich Chemical Company supplies the Carbopol water-soluble resin.

New water-based lubricant and mold release agent made possible by Carbopol

A new spray lubricant for lining glassware molds is being made with Carbopol 934 as a dispersing and suspending agent. This new mold release is water-based, replacing the oils, greases and organic materials previously used. It provides a superior, thin, tenacious film and at the same time eliminates a cause of fumes and fire hazard.

Carbopol 934 provides ideal colloidal suspension, permitting variation in desired viscosity by varying the concentration. For example,

0.5% Carbopol 934 produces stable suspensions with high viscosities, 0.3% provides stable suspensions with very low viscosity. It proved ideal for this colloidal suspension of micro-sized molybdenum disulfide. And the suspension is permanent—there is no need for a “shake well before using” on the container.

Carbopol water-soluble resins may be the answer to your need for an improved product, or a broader market. Information and samples can be obtained by writing Dept. JD-1.

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Linus T. Caulfield



Earl J. Witt



William H. East, Jr.

Gard in Expansion

Gard Industries, Inc., Northfield, Ill., specialties aerosol filler recently began an expansion program with the appointment of four new executives, according to an announcement by Howard G. Klehm, president.

The four executives and their positions are: Linus T. Caulfield, manager of the manufacturing division for Gard and its subsidiary, Gard Pressure Foods Corp.;

Earl J. Witt, sales director of the general products division which includes specialized contract filling and general consumer products for the sales division; William H. East, Jr., sales director for Gard Pressure Foods; and Charles Ross, comptroller and office manager.

Mr. Caulfield was formerly with General Electric Co. and is now in charge of manufacturing for Gard's various sales divisions

and all contract filling operations. Previously national sales director for Gold Seal Co., makers of "Glass Wax," Mr. Witt was also head of his own firm of sales, merchandising, and advertising consultants which handled several promotion campaigns including one for "Perma Starch," manufactured by Dumas Milner Co., Jackson, Miss. In his new post, Mr. East supervises operations of Gard Pressure Foods.

Forrest M. Lockett, below, of Monsanto Chemical Co., was recently elected president of the Chicago Drug & Chemical Association. Other newly elected officers are: first vice-president, Samuel A. Davis, C. P. Hall Co. of Illinois; second vice-president, Robert DeLamar, J. H. DeLamar & Son, Inc.; secretary, J. C. Browning, DeMert & Dougherty, Inc.; and treasurer, Ebon C. Jones, Owens-Illinois Glass Co. At the same time the association announced that Charles G. Clark, vice-president of Abbott Pacific, Ltd., a division of Abbott Laboratories of Chicago, would be guest speaker at the February 25 luncheon to be held at the Congress Hotel. Mr. Clark's subject is "Japan and its Relationship to Your Business."



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NAME OF WAX	M.P. A.S.T.M. D-127-30	PENETRATION 100g/77°/ 5 sec.	COLOR N.P.A.	ACID NUMBER	SAPONIFICATION VALUE	TYPE
Cardis Polymer #10	212-216	0-1	1-1½	8-10	25-30	Polymer
Cardis Polymer #8®	205-210	1-2	3-5	7-10	24-28	Polymer
Cardis 935	210-214	2½-3	1-1½	16-18	38-42	Polymer
Cardis One®	195-200	1-2	4-5	12-16	45-55	Emulsifiable Petroleum Wax
Cardis 314®	184-189	4-6	4-5	13-16	45-55	Emulsifiable Petroleum Wax
Cardis 319®	180-185	5-7	4-6	18-20	65-70	Emulsifiable Petroleum Wax
Cardis 320®	180-185	5-7	4-5	28-30	75-80	Emulsifiable Petroleum Wax
Cardis 262®	195-200	3-5	Brown	14-17	40-45	Specially Processed Petroleum Wax
Polymekon®	195 MIN.	0-3	Yellow	0-0	0-0	Specially Processed Petroleum Wax
Warco BP 10	300-320	6½	Yellow	0-0	0-0	Specially Processed Petroleum Wax
Fortex®	190-200	3-5	2½-3½	0-0	0-0	Microcrystalline Hard & Plastic
Mekon® Brown	190-195	3-5	Brown-Black	0-0	0-0	Microcrystalline Hard & Brittle
Mekon® Amber	190-195	3-5	Amber 6 Max.	0-0	0-0	Microcrystalline Hard & Brittle
Mekon® Yellow	190-195	3-5	Yellow 3-3½	0-0	0-0	Microcrystalline Hard & Brittle
Warco® Wax 180 White	180-185	4-7	White	0-0	0-0	Microcrystalline Hard & Brittle
Warco® Wax 180 Brown	180-185	4-7	Brown	0-0	0-0	Microcrystalline Hard & Brittle
Warco® Wax 150-A Yellow	155-165	25 Max.	2 Max.	0-0	0-0	Microcrystalline Plastic
Warco® Wax 150-A Brown	155-165	15-20	Brown	0-0	0-0	Microcrystalline Plastic
Warcosine®	150-160	30 Max.	White	0-0	0-0	Microcrystalline Plastic
Paraffin			All Grades			Crystalline
Cane Wax 500	170-176	2 Max.	Tan	26-32	75-95	Vegetable Wax
Cane Wax 511	176-180	2 Max.	Brown	62-68	130-140	Vegetable Wax
Cane Wax 517-711	176-180	2 Max.	Black	11-14	75-85	Vegetable Wax
Cane Wax 700	171-177	2 Max.	Light Brown	26-32	70-90	Vegetable Wax

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Pesticide Symposium

An all day Pesticide Symposium is scheduled for February 22 as part of the 42nd national meeting of the American Institute of Chemical Engineers at the Biltmore Hotel, Atlanta, Ga., Feb. 21 to 24.

Under the chairmanship of D. J. Porter, Diamond Alkali Co., Painesville, O., six papers will be presented. Speakers and their topics will include S. H. McAllister of Shell Chemical Corp., New York, "The Formulation of Pesticides"; J. V. Vernon, Food Machinery & Chemical Corp., New York, "The Pesticide Business"; J. G. Plowden, Geigy Agricultural Chemicals, Ardsley, N. Y., "History of DDT"; H. R. Moody, Rohm & Haas Co., Philadelphia, "The Technology of Pesticide Manufacture"; W. R. Bradley, American Cyanamid Co., New York, "Industrial Hygiene"; and L. J. Polite, Jr., Dixon Chemical & Research, Inc., Bloomfield, N. J., "Distribution."

New Toni Laboratories

Toni Co., Chicago, recently dedicated its expanded research laboratories in that city which are said to be the largest in the world devoted to the study of cosmetic products for use on hair and skin. Located in the Merchandise Mart, the laboratories are a result of a



Six veteran employees of Givaudan-Delawanna, Inc., New York, who received gold Swiss watches upon completion of 25-years with the firm, are l. to r.: Arend Vander Valk, Joseph Miskiv, Rudy Angelino, Ruth Uhlig Sheridan, Dr. Max Luthy, vice-president in charge of production and research, Ernest R. Durrer, president, making the presentation, Urho Korpi and Fed Jaekel. Party, attended by 340 employees of Givaudan-Delawanna, was held at Swiss Chalet, Rochelle Park, N. J.

two year expansion program in the company's research department. The program involved doubling of Toni's Chicago research facilities, acquisition of new laboratory equipment, and a substantial increase in the technical staff.

Wyandotte Appoints Two

Robert M. Lawrence has been named resident sales representative and John U. Wolter has been appointed assistant manager of the industrial organic chemicals department for Michigan Alkali division of Wyandotte Chemicals Corp., Wyandotte, Mich., it was an-

nounced recently. Mr. Lawrence joined the company in 1957 and served most recently as assistant in the organic sales group. He is now located in Kansas City, Mo., and his territory includes Missouri, Oklahoma, Kansas and Colorado. With Wyandotte since 1951, Mr. Wolter was most recently resident sales representative in the western district.

Surfactants Brochure

(From Page 149)

polishes, and a number of other chemical specialties and personal products.

Geigy makes a wide variety of alkanolamides. Their uses include personal products, heavy duty detergents, dish washing detergents, emulsion cleaners, and numerous industrial applications.

The booklet lists amines having detergent, anti-static, anti-corrosive, germicidal and fungicidal properties. A number of surface active agents for specialized applications are covered. Two newcomers include: nonylphenoxy acetic acid and lauroyl iminodiacetic acid. Both are corrosion inhibitors. The latter is available only in pilot plant quantities.

Polak's Frutal Works, Inc., Middletown, N.Y., recently held its annual sales meeting. Those attending were (seated, left to right): Erik Vles, treasurer and sales manager; R. Boucher, A. H. Micheels; E. Polak; W. R. Lloyd, Soffor, Ltd., England; B. Polak, president; J. Meihuizen, co-director of Polak's in Holland; J. ter Veer; L. Kirsh; and H. Roger, far eastern representative. Standing, left to right, are: E. Johnson, D. Moncino, P. Delaney, L. Pais, E. Sturman, J. Donnelly, K. Freiberg, A. Krol, A. J. de Jong, J. S. Jellinek, M. Preiser, F. Marshall, H. Loneragan, E. Buday, J. Melody.



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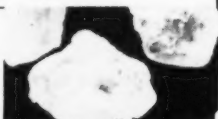
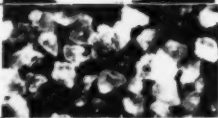
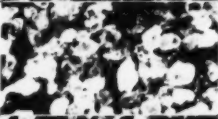
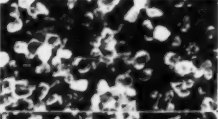
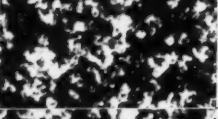
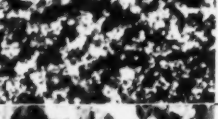

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✓ PLEASE ROUTE TO:

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- ☐ Production
- ☐ Sales
- ☐ Research
- ☐ Return to Purchasing

SIZE AND DESCRIPTION:		COMMENTS:	CHECK HERE FOR:		
			Free 1-lb. sample	50-lb. trial drum (purchase)	Further information
PEA No. 1 Repackage these big sparkling PARADI crystals just as they come from the drum.					
PEA No. 2 A popular size for re-packaging in vaporizer cans.					
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POWDERED Save time in melting and molding with this super-fine fast-melting size.					
GRANULATED This size is used as an agricultural insecticide and herbicide, and as a chemical intermediate.					

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Curley to Move

Curley Co., Philadelphia, manufacturers of detergents and household specialties, is planning to move to Camden, N. J., it was announced late last month by Franklin Levin, president. The company will sell its main plant and three warehouses in Philadelphia to move to the one-story plant at Third and Jefferson Streets in Camden. The building, which has 115,000 square feet of floor space, was formerly occupied by a linoleum manufacturing firm. Curley is reported to have purchased the plant for \$390,000 and is spending another \$110,000 on improvements.



New Curley Co. plant in Camden, N. J.

Richardson Buys Treplow

Treplow Products, Inc., Patterson, N. J., has been acquired by Richardson Co., Melrose Park, Ill., it was announced jointly last month by William B. Basile, Richardson president, and Alan I. Wolpert, president of Treplow. The acquisition was accomplished by the formation of a Richardson subsidiary named Treplow Chemical Co., which acquired the assets of Treplow in a cash transaction. Treplow produces organic chemicals and synthetic resins for use in the detergent, cosmetics, textile, laundry and dry cleaning industries. Richardson, founded in 1858, produces industrial rubber and plastic products.

Chicago Group Elects

The following officers for 1960 were elected recently by the Chicago Perfumery, Soap & Extract Association: president, L. H. Kopper, Abbott Laboratories, Inc.; vice-president, John P. Helfrich, Helfrich Laboratories; secretary, Harold W. Jelly, Jelly & Co., and treasurer, George G. Kolar, Kolar Laboratories.

Emilio Viale Dies

Emilio Viale, 38, entomologist and head of field development work for the agricultural chemicals division of Hercules Powder Co., Wilmington, Del., died of a heart

attack in that city on Dec. 23. Dr. Viale had been with Hercules for over six years and from 1953 to 1958 was assigned to Brazil.

P & G Earnings Increase

Consolidated net earnings of Procter & Gamble Co., Cincinnati, for the six months ended Dec. 31, 1959 increased by 22 per cent to \$52,959,794, or \$2.65 per share. In the comparable 1958 period, earnings were \$43,116,912, or \$2.09 per share.

Hoechst on West Coast

Distribution in the Western United States of the products of Farbwerke Hoechst A.G., Frankfurt, Germany, will be handled by the newly formed Hostachem Corp., 6850 Tujunga Avenue, North Hollywood, Calif., it was announced last month. Hostachem is taking over sales and distribution of Hoechst products from Westco Chemicals, Inc. at the same address. J. J. Lent is president of the new organization.



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Stayner in New Post

R. D. Stayner was appointed eastern sales manager last month in the newly created industrial



R. D. Stayner

chemicals division of Oronite Chemical Co., San Francisco, a subsidiary of Standard Oil Co. of California. Formerly detergent products specialist for Oronite in San Francisco, Mr. Stayner now makes his headquarters at the company's offices in New York. The industrial

chemicals division was created recently as one of three new product sales divisions, each responsible for a group of related products. Detergent raw materials, polybutenes, dispersants, xylenes, and odorants are among the products of the new division.

Names PR Counsel

The Fragrance Foundation, New York, an association of manufacturers and suppliers of perfume and other fragrance products, named Helen Nash Associates, Inc., New York, last month as publicity and public relations counsel.

James Martin Dies

James Martin, perfumer and compounder for Albert Verley & Co., Linden, N. J., for the past ten years died at his home, in Union, N. J. January 24.

Mr. Martin, who leaves a wife and two children, has been active in the perfumery field for many years.

Armour Appoints Strain

Robert Strain was named industry manager last month for polymer and surfactant chemicals



Robert Strain

at Armour Industrial Chemical Co., Chicago. With the company since 1950, Mr. Strain has maintained headquarters in Indianapolis. In his new post, he is concerned with commercial development of Armour's industrial emulsifiers and specialized processing aids.



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Florasynt Advances Miller

John R. Miller was advanced recently to eastern sales manager for Florasynt Laboratories,



John R. Miller

Inc., New York, assuming many of the responsibilities held by the late Arch Payne, assistant vice-president, who died last fall (see *Soap and Chemical Specialties*, December 1959, p. 239). Formerly a flavor specialist at the midwest sales office, Mr. Miller joined Flor-

asynth in 1956. He makes his headquarters at the company's New York executive offices.



Perfumers Elect Officers

The American Society of Perfumers elected the following officers at its annual business meeting in January: Bernard Polak, Polak's Frutal Works, president; William H. Barlow, Orbis Products Inc., first vice president; Herbert Sommer, Prince Matchabelli, second vice-president; Dorothy A. Douglass, Shulton, Inc., secretary; and Edwin D. Morgan, Jr., Lever Brothers Co., treasurer.

The board of directors is headed by Oliver L. Marton of Shulton Inc., chairman. Members include all officers and Walter Lengsfelder, Fleuroma, Inc.; John Hancock, Warner Hudnut; Elmer L. V. Sulik and Edward J. Shuster, van Ameringen-Haebler Division, International Flavors & Fragrances, Inc.

Chanel Appoints Sales Rep

Joseph E. Hedges was appointed area sales representative last month for Chanel, Inc., New



Joseph E. Hedges

York, in Kentucky, North Carolina, eastern Tennessee, Virginia, and West Virginia. Mr. Hedges formerly represented Helena Rubinstein, Inc., New York, in Washington, D. C., Virginia, North Carolina, and Tennessee, and prior to that was with Lucien Lelong, Inc.

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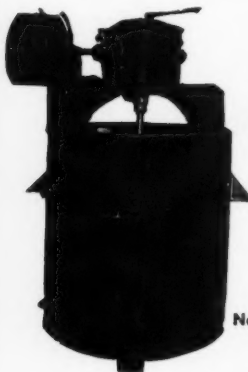
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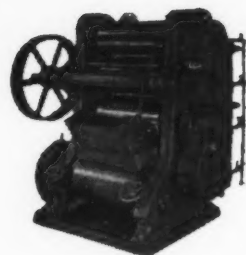


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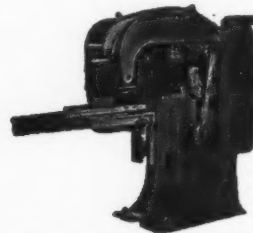


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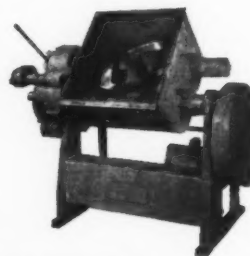
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partment, working very closely
with the sales department in solv-
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oping new products. Send complete
resume of education, experience
and salary desired to Box 404, c/o
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position for B.S. chemist with large
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enced in development of industrial
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Chemist-Salesman: 18 years experience in research, development, and sales of chemical specialties and raw materials. Seeking position in Florida. Address Box 409, c/o Soap.

Research Chemist: Ph.D., 27 years of versatile experience in organic and industrial chemistry, creative, specialized in synthesis of basic detergents, wetting and chelating agents, analysis and formulating of detergent compositions and cleaners. Foreign languages. Publications. Literature search. Presently employed in New Jersey. Desires challenging position in research and development, preferably in surfactant field. Address Box 408, c/o Soap.

President Executive V.P.: Are you a widow, a gentleman wanting to retire, or a Board of Directors, looking for a President or an executive vice-president for your growing chemical or chemical specialties company? I am an executive of a medium sized, nationally

Situations Wanted

known specialties company looking for you. Presently employed on the west coast — a chemical engineer with 20 years of diversified experience in all phases of the chemical and chemical specialty business. Resume on request. Address Box 410, c/o Soap.

Chemist: Executive, expert in formulations and manufacture of sanitary maintenance chemicals. Experienced in handling men in factory and on large maintenance jobs. Address Box 411, c/o Soap.

Chicago Mfrs. Rep.: With established following among detergent, household specialty, cosmetic and aerosol manufacturers seeks additional line. Address Box 399, c/o Soap.

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Soap Factory: Castile soap factory in Trieste (Italy) for sale. Established two centuries. Well known brands. Firm in excellent financial position. Owner must retire for health reasons. Biggest exporter castile soap from Italy to

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States. Could be utilized for other chemical production. New lines of production exempt of income tax in Trieste. Write to Adria, via Trenta Ottobre 4, Trieste, Italy.

For Sale

For Sale: MRM, 6 spout, vacuum liquid filler; Whirlwind portable screw capper; Gluemaster, semi-automatic label gluer; Day 150 gallon ribbon blender. Sell us your surplus equipment. Irving Barcan Co., 249-51 Orient Ave., Jersey City 5, N. J.

For Sale: 3 and 4 roll granite steel roller mills. Plodders. Grinders. Chippers. Crutchers. Slabbers. Cutting tables. Kettles. Filter presses. Mixers. Sifters. Foot and power soap presses. Partial listing. We buy surplus equipment. Stein Equipment Co., 107 — 8th St., Bklyn. 15, N. Y.

For Sale: Full line new and used processing vats, pumps, coolers, homogenizers, fillers, etc. Send us your inquiries. Stuart W. Johnson & Co., Lake Geneva, Wis.

For Sale: By I. E. Newman, 818 W. Superior, Chicago, Ill., CH 3-1425. Mixers. Marion-Munson, sizes 50# to 10,000# Crutchers—1,000-8,000#. Wrapper Type S; Auto Cutting Table; Bucket Elevators. Mills. Cutters. Crushers. Soap Equipment. Prices on request.

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For Sale: Bowen pilot T-304 SS spray dryers, Sharples #16V in-conel soap centrifugals, Hope single piston stainless filler. Perry Equipment Corp., 1410 N. 6th St., Phila. 22, Pa.

For Sale: 78 page listing of "Surfactants" (1958) Price \$2.50. Write John W. McCutcheon, 475 Fifth Ave., New York 17.

Available Soon: Third edition HANDBOOK OF PEST CONTROL by Mallis will be available in a few weeks. Price \$12.50. Outside U.S. add 50¢ for postage.

Aerosol Sales Outlook

(From Page 137)

challenge the leadership of the principal products, but their sales volume cannot be reliably forecast.

3. The challenge of the next decade is two billion nonfood and food aerosols per year. Whether we meet it or not depends on the further successful development of food aerosols.★★

— ★ —

Fries to Mark 106th Year

Fries & Fries, Inc., Cincinnati, will observe its 106th anniversary in March. Established in 1854 by the Fries family, the company began as a manufacturer of flavors, extracts and caramel colors and is now a supplier of essential oils, aromatics, flavors, perfume bases.

Soap Meeting

(From Page 161)

noted that he could rely on his suppliers for a great deal of information in solving maintenance problems. In field testing a cleaning material his unit does not reveal an attitude about the product to the maintenance men who test it and evaluations of performance are asked of laymen as well as maintenance personnel in judging the product.

Thomas Rose of the General Services Administration told of that agency's establishment of a board made up of a quality control man, specifications man, an attorney, and a comptroller which sets out to do the best possible buying job "for the taxpayers." In doing this job an effort is made to broaden competition among suppliers, he said.

Use of lists of approved cleaners and polishes for rubber and solid vinyl floors for the Rubber Manufacturers Association was reported by George Flint, secretary of the organization. The lists were established in 1932 to protect consumers and association members from claims, he noted.

The institutional consumer's side of product standards and certification was presented by J. S. Fassett of the American Hotel Association. This organization has a certified products program which can be applied to cleaning and maintenance supplies. Mr. Fassett

explained how the program operates. Manufacturers are invited to submit their products to the association's designated testing laboratory which tests the products employing test methods and standards which have been developed over several years. Those products which qualify are listed in an annual certified products list. Names of products which fail to qualify are not divulged to anyone but the manufacturer, Mr. Fassett said. Several other organizations make use of the association's list which offsets the cost incurred by the manufacturer in having his product tested.

Fatty Acid Meeting

W. O. Robertson of A. Gross and Co. presided at the Fatty Acid Division business meeting the afternoon of Jan. 21, which began with a talk by F. J. Poats of the Agricultural Research Service, U.S.D.A. He discussed plans for a market study on the industrial uses for fats and oils.

Next speaker, W. J. Crehans, General American Transportation Corp., spoke on his company's "Kanigen" chemical nickel alloy lining for fatty acid storage and transport.

The direct analysis of fatty acids through gas chromatography was discussed by C. Eugene Bennett of F & M Scientific Corp., who explained the operation of his company's "Linear Programmed Temperature Gas Chromatograph."

Committee reports, usually

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delivered at the business meeting, were passed over in order to hear the report of a special committee on food additives which is concerned with the Food Additive Amendment scheduled at this writing to become effective on Mar. 6. The special committee is seeking to have extended the effective date of the amendment to Mar. 6, 1961, on the basis that stearic and oleic acid are safe for public use as proved by past experience. As of last month the committee was hopeful that the extension would be granted and intended to file application for the extension before a Feb. 1 deadline.

Members at the business meeting voted unanimously to establish a special fund through payment of an amount equal to one-half of each member's annual dues to conduct tests during the extension period. The Food and Drug Administration is asking for definitions and specifications for food additives and the division is seeking a perfect test as its goal. However, its immediate aim is to obtain an extension with as few conditions as possible.

A report on membership and finance was delivered by E. Scott Pattison, division manager. New officers and members of the steering committee were elected and include:

W. O. Robertson, A. Gross and Co., chairman; W. J. O'Connell, HumKo Division of National Dairy Products Corp., vice-chairman; K. K. Boyd, Emery Industries, Inc.; C. W. Eurenus, Hercules Powder Co.; F. E. Lacey, Swift and Co.; M. E. Lewis, Armour and Co.; R. J. Spitz, Newport Industries Division of Heyden Newport Chemical Corp.; K. H. Reimold, Woburn Chemical Corp.; and G. Zinzalian, E. F. Drew & Co.

Click Para Packs

(From Page 89)

ideas on packaging with the services of outside packaging consultants and designers. Even when using a consultant, Click contributes a large share of its own thinking in the development of new packaging ideas.

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Fragrance Products Rise

A prediction that 1960 U. S. sales of consumer products containing fragrances will exceed the eight billion dollar retail total of 1959 was made recently by Charles Pitman Walker, president of International Flavors and Fragrances, Inc., New York.

Large scale users of fragrances and fragrance materials such as producers of soaps, cosmetics, toiletries and aerosols are expected to operate at a higher level this year, he said.

The continued expansion of the world market for U. S. fragrance manufacturers was predicted. This trend should continue in 1960, particularly in Europe where improved methods of distribution, a marked rise in disposable income, and the lessening of continental tariff barriers should create favorable conditions for consumer products of U. S. producers.

Recent advances in chemical technology of fragrance manufacturing, such as organic synthesis, will produce better, more stable fragrance materials at lower cost, and will permit upgrading of products of all types, according to Mr. Walker.

Dahl Bank Vice-Pres.

Nils S. Dahl, vice-president and general manager of John T. Stanley & Co., New York, last month was elected a vice-president of Bay Ridge Savings Bank, Brooklyn. He was formerly secretary of the bank and continues as a trustee. Nils, incidentally, was reelected treasurer of the Soap Assn. during AASGP's recent annual meeting in New York. A veteran of over 40 years with Stanley, he has been treasurer of the Soap Assn. for better than 30 years.

New Ungerer Catalog

A 32-page price list of its essential oils, aromatic chemicals, flavors and related compounds was made available last month by Ungerer & Co., 161 Avenue of Americas, New York 13, N. Y. The 8½ x 11 inch booklet also includes

the Vidal-Charvet French line of natural extractives and specialties, "Unco Simile" products, as well as the new "Flavolope" spray dried flavors. Copies are available on request.

Miserendino to Flam-Haft

Jacques A. Masson, president of Flam-Haft Laboratories, New York, announced recently that Thomas Miserendino has joined the firm as vice-president and chief perfumer. Mr. Miserendino formerly was vice-president of Perfumery Associates, New York.

Drackett Sales Rise

Preliminary figures reported last month by Drackett Co., Cincinnati, for the quarter ended Dec. 31, 1959 showed an increase in sales to \$7,485,009 from \$6,091,128 in the corresponding 1958 period. Net income was \$559,501, or 61 cents per share, compared with \$444,307, or 47 cents per share, in the 1958 quarter.

New Western Process Units

Construction of additional process units and expansion of existing facilities at the Chanute, Kans., refinery of Western Petrochemical Corp., New York, were reported nearing completion last month by Maurycy Bloch, president. The new facilities include a propane deasphalting unit, additional vacuum distillation units, and a "TCP" wax treater process, reported to be the first of its kind in the world to permit continuous bleaching of wax products instead of conventional batch bleaching. Completion of the new units marks a step in a five year expansion program at Western, Mr. Bloch said.

Fragrance Process Moves

Fragrance Process Co. moved last month to new quarters at 667 Madison Ave., New York 21. New telephone number is TEmpleton 8-2344. Previously the company was located at 355 West 52nd St., in New York.



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COMING MEETINGS

American Chemical Society, national meeting, Cleveland, April 5-14.

American Oil Chemists Society spring meeting, Baker Hotel, Dallas, April 4-6, 1960. 1960 fall meeting, New Yorker Hotel, New York, Oct. 17-19.

American Institute of Chemical Engineers, Pesticides Symposium, Hotel Biltmore, Atlanta, Ga., Feb. 22.

Canadian Manufacturers of Chemical Specialties Association, 3rd annual convention, Queen Elizabeth Hotel, Montreal, Oct. 24-26.

Chemical Specialties Manufacturers Association, 46th mid-year meeting, Drake Hotel, Chicago, May 16-18; 47th annual meeting, Hollywood Beach Hotel, Hollywood, Fla., Dec. 3-9.

Committee D-12 on Soaps and Other Detergents (ASTM), Park Sheraton Hotel, New York, March 14 and 15.

Drug, Chemical & Allied Trades Association, 70th annual meeting, Sagamore Hotel, Bolton Landing, N. Y., Sept. 15-18, 1960.

Federation of European Aerosols Association, Duesseldorf, Germany, April 20-27.

Folding Paper Box Assn., annual meeting, Ambassador Hotel, Los Angeles, March 22-23.

International Congress of Surface Activity, Cologne, Germany, Sept. 12-17.

National Packaging Show, Convention Hall, Atlantic City, N. J., April 4-8, 1960.

National Sanitary Supply Assn., 37th annual convention, Fontainebleau Hotel, Miami, Fla., May 22-25, 1960.

Packaging Machinery Manufacturers Institute, (PMMI) fourth annual show, Cobo Hall, Detroit, Oct. 31-Nov. 3, 1960.

Plant Maintenance & Engineering Show, Convention Hall, Philadelphia, Jan. 25-28.

Society of Cosmetic Chemists, New York Chapter, New Yorker Hotel, April 20.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meetings, Roosevelt Hotel, New York, Feb. 2; March 8; April 12; annual spring outing, Shawnee Inn, Shawnee, Pa., May 11-13; annual meeting, Roosevelt Hotel, New York, Dec. 8.

Toilet Goods Association, 25th annual meeting, Poland Springs House, Poland Springs, Me., June 27-29, 1960. Scientific Section, Waldorf-Astoria Hotel, New York, May 11, 1960.

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Tale Ends

ANDREW K. Forthmann, president of Los Angeles Soap was reelected president of the Association of American Soap & Glycerine Producers, — generally known as the Soap Association,—for a third consecutive term at its meeting in N.Y. last month. This is the first time in 15 years that any individual has served for three consecutive terms as president of the Association. And to top it all off, Los Angeles Soap celebrates its 100th birthday. Looks like 1960 should be quite a year for old LA Soap!

The so-called "small soapers" sort of congregate together whenever they meet. At the recent soap conclave in N. Y. at luncheon, a table of "small soapers" included Al Peck, prez of Peck's Products, St. Louis; Earl Brenn, v-p of Huntington Labs of Huntington, Ind.; Howard Young, prez of Davies-Young of Dayton; Frank Pollnow, Jr.; prez of Vestal, Inc. of St. Louis, and some others we can't recall. Also included in the group was Neil McElroy, chairman of P & G, having a swell time. A new member of the "small soapers" clan.

Howard Young, prez of the Davies-Young Soap Co. of Dayton and recently elected to the board of the Soap Association, happens to be Republican Party chairman of Hamilton County, Ohio. Reminiscing recently on how voters vote, Howard came up with the following sage observations: People vote first with the heart, second with the pocketbook and third with the head. From our own observations, we have long wondered whether the heart or the pocketbook came first.

Howard Morgens, P & G president, was presiding at luncheon at the recent Soap Association meeting at the Waldorf in N. Y. Two waiters had engaged in a quiet altercation while serving lunch. They apparently carried their dispute into the kitchen and in the midst of Mr. Morgens' opening remarks, loud shouts from said kitchen rent the quiet of the hushed gathering of soap people. Mr. Morgens interrupted his remarks long enough to deny that the battling waiters had any connection with his act. He then quietly continued midst a roar of laughter.

Every year we receive an assortment of calendars, one more beautiful than the next. This year was no exception. If we had to make a decision of which was most beautiful, we feel our award would go to the one received from Farbwerke Hoechst AG of Frankfurt am Main, Germany. Exquisitely lithographed reproductions of twelve old masters on the back of which is the story of the artist in each case in German and English. A beautiful job!

For the first time in history, the Chemical Specialties Manufacturers Assn. this year will go all out for sports. Two general "outings" are scheduled to be staged. The first to be held at the Knollwood Golf Club, Elmsford, N. Y. on Thursday, June 16, will comprise a golf tournament with quoits, putting, bull throwing, etc. for non-golfers. The second, date as yet unset but probably in the early fall, will be in Chicago. Fred Lodes of Lodes Aerosol Consultants heads the committee for the eastern party. Charley Allderice of the Bell Co. heads the committee for the mid-west. Pull in your ears, men, here we go again!

We learn something every day, viz., Reliable Chemical Co., manufacturers and distributors of a wide range of moth products, and other chemical specialties, is located at 10 Mothball Terrace, Passaic, N. J.

We're still trying to find out what they were trying to prove, but recently a group of 88 business men from Southern California recently made it out to Hawaii and back in the same day, with time for a swim at Waikiki, luncheon at the Royal Hawaiian and a sight seeing trip through Honolulu. Aboard the Boeing 707 jet, which left Los Angeles International Airport at 8:05 a.m., was Charles T. Atwood, Los Angeles plant manager of Lever Brothers Co. When he arrived back at the L. A. airport at 10:42 that night, we understand Mr. Atwood was so out of breath from the

experience that he was unable to comment.

Nils J. Stromstad, who retired recently after 27½ years with Sterling Drug and its subsidiary Sterwin Chemicals, Inc., is due back shortly from a two-three months vacation trip in Arizona and California he planned following his "stepping out of harness." Nils is too young and too energetic, in our book, to ever be content with a "rocking chair on the front porch existence." He may be reached at his home, 4027 E. 50th St., Minneapolis, Minn. Like a lot of other folks in the chemical specialties business, we'll miss seeing him at meetings and trade shows.

Speaking of growing old gracefully, or just plain growing old, is it possible "Silicate P's & Q's", that delightful single sheet external house organ of Philadelphia Quartz Co., is 40 years old? An exponent of the "soft-sell" technique, "Silicate P's & Q's" with its fund of astonishing information on the widest possible range of subjects has given us many pleasurable moments in the close to 20 years we've had the opportunity to read it. Ad multos annos!

How about that! Contestants in the skating events at the eighth Olympic Winter Games at Squaw Valley, Calif., this month are skating on ice made by "Isotron" refrigerants manufactured by Pennsalt Chemicals Corp. in Philadelphia. The Pennsalt product, also used widely as an aerosol propellant, in case you didn't know, was selected to help furnish the ice for the racing and figure skating contests in the 109,000 square feet of skating rinks.

Gentlemen songsters off on a singing spree during recent CSMA meeting in Washington, D. C., included left to right, entertainer extraordinary, Don Samaritan; Maxwell Danford Smart, Monroe-Danford & Co., Weehawken, N. J.; Edward Bloch, news editor of Soap & Chemical Specialties; Roy H. Hoonhout, Monroe-Danford; T. B. Welch, Gulf Oil Corp., Pittsburgh, and Matthew Phelan, Philadelphia branch manager of Dodge & Olcott, Inc., New York. Scene of the "crime": Dodge & Olcott's suite in the Mayflower Hotel during CSMA's "open house" night.



